PREDICTING SOIL LOSS

USING THE UNIVERSAL SOIL LOSS EQUATION

ARKANSAS

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, LITTLE ROCK, ARKANSAS

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C O N T E N T S

INTRODUCTION

This handbook contains guidelines for selecting erosion control practices best suited to the particular needs of Arkansas soils, whether intended for agricultural or non-agricultural use.

It outlines a procedure for predicting soil loss from sheet erosion through the use of the Universal Soil Loss Equation. This technique utilizes all pertinent research information which has been methodically combined to provide design data for conservation plans. It is not intended for use in predicting gully erosion caused by concentrated flowing water, or for wind or geologic erosion.

Accurate predictions of soil loss can be made for croplands, grasslands, woodlands and urban developments. This technique gives planners a means for precisely evaluating the effectiveness of various conservation treatments and a basis for making sound choices from the acceptable alternatives.

The Universal Soil Loss Equation is the result of more than 20 years of study and development by scientists of the USDA. Science Education Administration Research is continuing to obtain still more precise information on the interrelations of topography, soil, and management practices. As additional knowledge is gained, it will be incorporated into the present prediction procedure.

THE EQUATION

The Universal Soil Loss Equation (USLE) is expressed: A=RKLSCP, wherein:

A is the predicted soil loss;
R is the rainfall factor
K is the soil-erodibility factor;
L is the slope-length factor;
S is the slope-gradient factor;
C is the cropping-management factor; and
P is the erosion-control practice factor.

Numerical values for each of the six factors have been determined from research data. These values differ from one field or locality to another and may be determined from the figures and tables presented herein.

Predicted soil loss is the calculated annual soil loss expressed in tons per acre. Sheet erosion is sometimes difficult to detect because five tons of soil removed evenly from one acre amounts to a layer of only 0.0275 inches, or less than the thickness of a dime. See Table 1 for time required to erode one inch of soil per acre. To convert to cubic yards, see Table 7.

Table 1

Years Required to Erode 1 Inch of Soil Per Acre

Weight of Soil (tons/acre-inch)		Soil Loss Rate (tons per acre per year) 3	4	5	6	7	8	9	10	11	12
136		44	34	27	23	19	17	15	14	12	11
142		47	36	28	24	20	18	16	14	13	12
147	-Clays	49	37	29	24	21	18	16	15	13	12
152		51	38	30	25	22	19	17	15	14	13
158	Loams-	53	40	32	26	23	20	18	16	14	13
165		55	41	33	28	24	21	18	16	15	14
171		57	43	34	28	24	21	19	17	16	14
176	-Sands	59	44	35	29	25	22	20	18	16	15
182		61	46	36	30	26	23	20	18	17	15

"R" FACTORS and "EI" VALUES

R is the rainfall erosion factor. An R value indicates the erosivity of the rainfall, not the average annual precipitation in a locality. Fig. 1 shows the distribution of R values in Arkansas by counties.

R values are adjusted to estimate soil losses during years when storms are above average and to estimate losses from individual storms. Table 6 lists probability values for 5, 20, and 50 percent probabilities and expected magnitudes of single storm EI values for 1, 2, 5, 10, and 20 years.

An R value is defined as the number of erosion index (EI) values in a normal year's rain. The erosion index (EI) value of a given storm is equal to the kinetic energy of the storm in hundredths of foot-tons per acre times its maximum 30-minute intensity in inches per hour. The EI values of individual storms may be summed to get an EI value for a month, for six months, or for any period of time. When EI values are summed and averaged over a period of years they become R values.

EI values, like R values, vary from one locality to another. There are three EI values in Arkansas as shown in Figure 2.

The distribution of erosive rains (or EI values) becomes important when C values, or estimates of soil losses, for a period of less than one year are needed. The distribution may be presented as a curve on a graph or in tabular form. Both methods show distribution as percent of EI at 10 day intervals. EI values used in Arkansas are included in Table 2.

Example - Determine the EI value (erosive rains) for the period April 1 to April 20 at Little Rock, Arkansas.

First: Refer to Figure 2 and note that erosion-index distribution No. 22 is applicable to Little Rock.

Second: See Table 2 - Under Curve No. 22 the reading for April 1 is 22 and the reading for April 20 is 30. The difference between these two readings -8- represents the percent of the average annual erosive rains that can be expected to occur during this period.

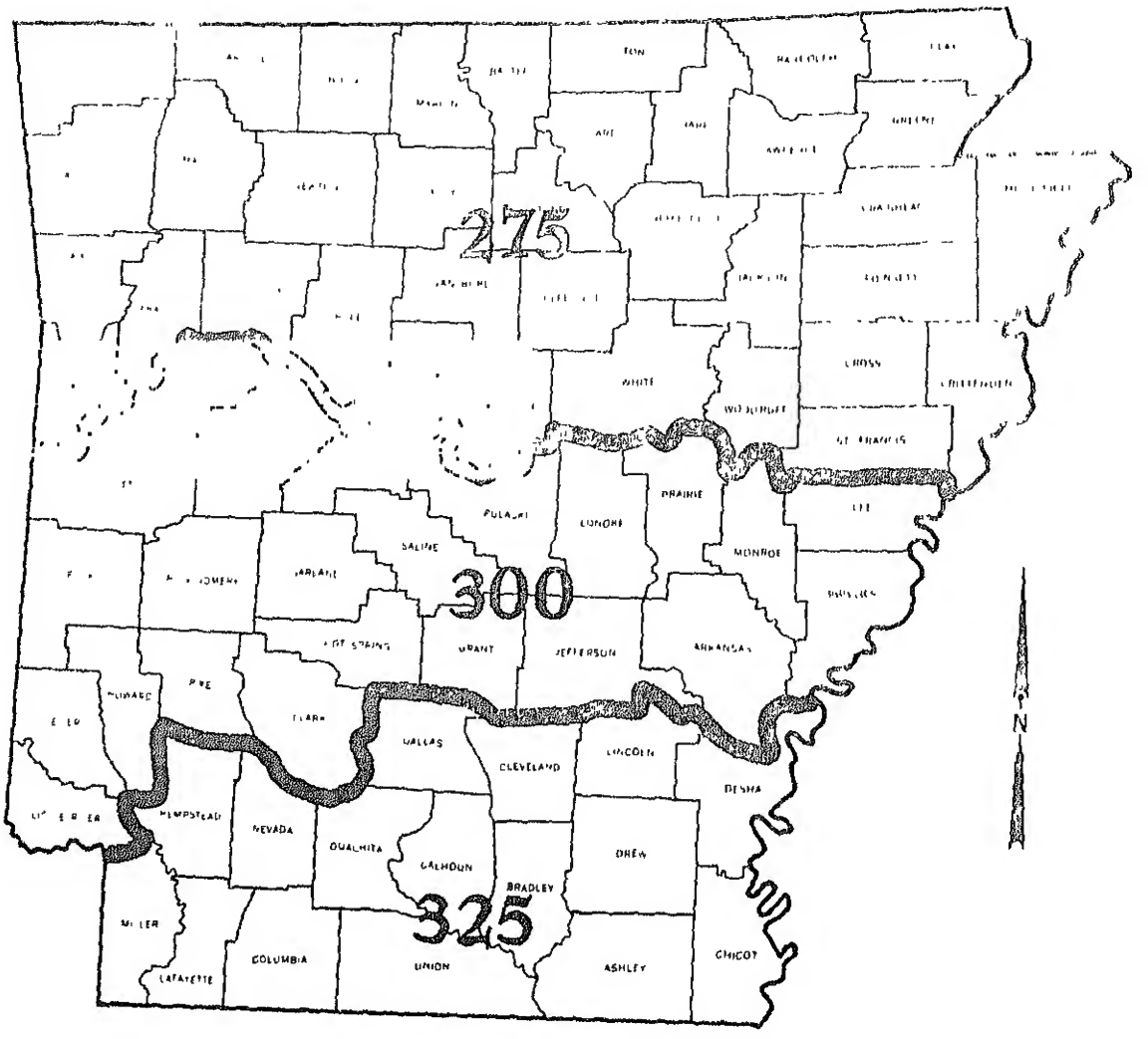

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FIGURE 1

AVERAGE ANNUAL VALUES
OF RAINFALL FACTORS

"K" FACTORS

K is the soil-erodibility factor. It is defined as the rate of erosion per unit of erosion index from unit plots on a given soil. A unit plot is one 72.6 feet long and has a uniform lengthwise slope of nine percent. Unit plots are kept in continuous fallow and free of vegetation for at least two years or until all crop residues have decomposed before they are used to determine K factors. When measurements are to be made, the plots are plowed in the spring and prepared for planting crops by conventional methods. Additional tillage is used as needed to control vegetation and prevent crusting. All tillage operations are performed up and down the slope. Naturally, soil losses from plots subjected to such treatments are among the highest that we could expect. These losses, soil by soil, are the basis for determining K factors. Soil losses from unit plots are also the basis for the soil-loss ratios used to compute C factors.

Unit plots have been established at several research centers across the country and K factors have been measured by research techniques for more than twenty major soils.

More than 25 characteristics of a soil affect its susceptibility to water erosion. These characteristics may be grouped into two major categories: those that influence infiltration, permeability and total water holding capacity; and those that affect dispersion, splashing, abrasion, and transportation of soil particles by runoff. The K factors originally assigned to most soils reflect the erodibility of the surface layer only. Due to increased interest in predicting soil losses from construction sites and similar areas, K factors have been determined for different layers of a soil. A soil series may now have as many as five K factors assigned to it depending on the characteristics of its profile.

Obviously, it is not practical to determine all K factors by research methods so the K factors for most soils are assigned after comparing them with similar soils that have measured factors. Assigned K factors are approved for each soil series by the regional principal soil correlator upon recommendations by soil scientists, agronomists, and other specialists. The assigned values are reviewed as new information becomes available and new lists of K factors are published from time to time. K factors and T factors for Arkansas soils are listed in Table 8. (See appendix.)

"T" VALUES

"T" is the soil loss tolerance value. It indicates the rate of soil loss in tons per acre per year that will allow a high level of crop production to be sustained economically and indefinitely. Any combination of cropping and management practices which will keep soil losses at or below the specified T value for a soil will provide satisfactory erosion control for that soil. T values for croplands range from 1.0 to 5.0 tons per acre.

"L" and "S" FACTORS

L and S are the topographic factors in the equation. L is the length of slope factor. S is the steepness of the slope factor. L and S have independent effects on water erosion; however, in this equation they are considered together as the LS factor and their values indicated numerically as soil-loss ratios.

The factor LS is the expected ratio of soil loss per unit area on a field slope to corresponding loss from the basic 9-percent slope, 72.6 feet long.

Refer to Table 9 (see appendix) for LS factor values.

Slope length begins at the point where runoff begins. It ends where the slope decreases, deposition begins, or where runoff enters a well defined channel that may be part of a drainage network or a constructed channel such as a terrace or diversion.

"C" FACTORS

C is the cropping-management factor (cropland and other uses) in the equation. It is the ratio of soil loss from a field with specified cropping and management or plant cover, to that from the fallow condition on a unit plot 72.6 feet long, with a uniform lengthwise slope of 9 percent in continuous fallow, tilled up and down the slope. This factor measures the combined effect of all the interrelated cover and management variables plus the growth stage and vegetal cover at the time of the rain.

Refer to Table 10 for C values for cropland.

Refer to Table 11 for C values for pasture, range, and idle land.

Refer to Table 12 for C values for woodland.

Refer to Table 13 for C values for annual cover and various quantities of mulch cover or mulch.

"P" FACTORS

P is the erosion control practice factor. Erosion control practice in this case refers to contour farming and contour stripcropping or the lack of them. The value of P is the ratio of the soil losses by contouring or contour stripcropping to up-and-down-hill cultivation.

Contouring implies that tillage operations and row grades are close to the true contour. It is most effective on slopes in the 2 to 7 percent range. As land slope decreases, the effectiveness of contour farming approaches equality with contour grades and the soil-loss ratio becomes 1.0. As slope increases, contour row capacity decreases and the soil-loss ratio again approaches 1.0. Contouring alone will afford adequate

protection against low to moderate intensity storms, but not against severe storms. For this reason, terraces and diversions are frequently used in conjunction with contouring.

P factors for contour farming and contour stripcropping are included in Table 14 together with limits for the application of these practices. Contour stripcropping implies a crop rotation with alternate strips of cultivated row crops grown adjacent to strips of small grain or grass. When comparing soil losses from a system including contour stripcropping with a system of contour farming or up-and-down-hill farming, remember the C factor in the stripcropping system may change. For example, you cannot use the same C factor to compare continuous soybeans on the contour with soybeans contour stripcropped because the stripcropped soybeans are in a rotation with small grains or a sod crop while the contoured soybeans are not.

Terraces reduce soil loss by breaking long slopes into a series of short ones. The spacing of terraces by means of the Universal Soil Loss Equation is determined by solving for the LS factor. Terraces intercept and hold in the field most, but not all, of the soil lost in the interval between terraces. Because some soil can be expected to leave a terraced field, a value of 20 percent of the contour P factor is used when estimating watershed sediment yields but not when estimating other soil losses.

COMPUTING C FACTORS

The following information must be considered simultaneously when computing a C factor.

1. The distribution of erosive rainfall during the crop year.
2. The crops grown and the crop management used including individual crop characteristics, crop sequences, tillage times and methods, planting and harvesting dates, yields, crop residues, and crop residue management.

The pattern of erosive rainfall in a year varies throughout the country and within the state. The distribution is usually presented as a set of numbered graphs known as "Erosion Index Curves" or "EI Curves." The three curves used in Arkansas have been adjusted to county boundaries and are shown in Figure 2. The curves are presented in tabular form in Table 2. The percentage of the annual erosive rainfall that is expected within any particular crop stage period may be found by reading the number at the last and first date of the period and subtracting.

EI Curves are related to R values, but neither R nor EI values indicate the total amount of rainfall in a locality. R values represent the annual value of erosive rainfall; EI values the distribution of that rainfall.

Cropstage Periods 1/

The change in effectiveness of plant cover within the crop year is gradual. For practical purposes, the year is divided into a series of cropstage periods defined so that cover and management effects may be considered approximately uniform within each period.

Initially, five periods were used, with the seedling and establishment periods defined as the first and second months after crop seeding (50). Because of the existing ranges in soil fertility, row spacing, plant population, and general growing conditions, however, soil loss prediction accuracy is improved when the cropstage periods are defined according to percentage of canopy cover rather than for uniform time periods. The lengths of the respective periods will then vary with crop, climate, and management and will be determined by conditions in a particular geographic area.

The soil loss ratios presented in the next subsection for computation of C were evaluated for six cropstage periods defined as follows:

Period F (rough fallow) - Inversion plowing to secondary tillage.

Period SB (seedbed) - Secondary tillage for seedbed preparation until the crop has developed 10 percent canopy cover.

Period 1 (establishment) - End of SB until crop has developed a 50 percent canopy cover. (Exception: period 1 for cotton ends at 35 percent canopy cover.)

Period 2 (development) - End of period 1 until canopy cover reaches 75 percent. (60 percent for cotton.)

Period 3 (maturing crop) - End of period 2 until crop harvest. This period was evaluated for three levels of final crop canopy.

Period 4 (residue or stubble) - Harvest to plowing or new seeding.

1/ For detail discussion of crop canopy and residue mulch, see pages 18 and 19 of Agriculture Handbook Number 537.

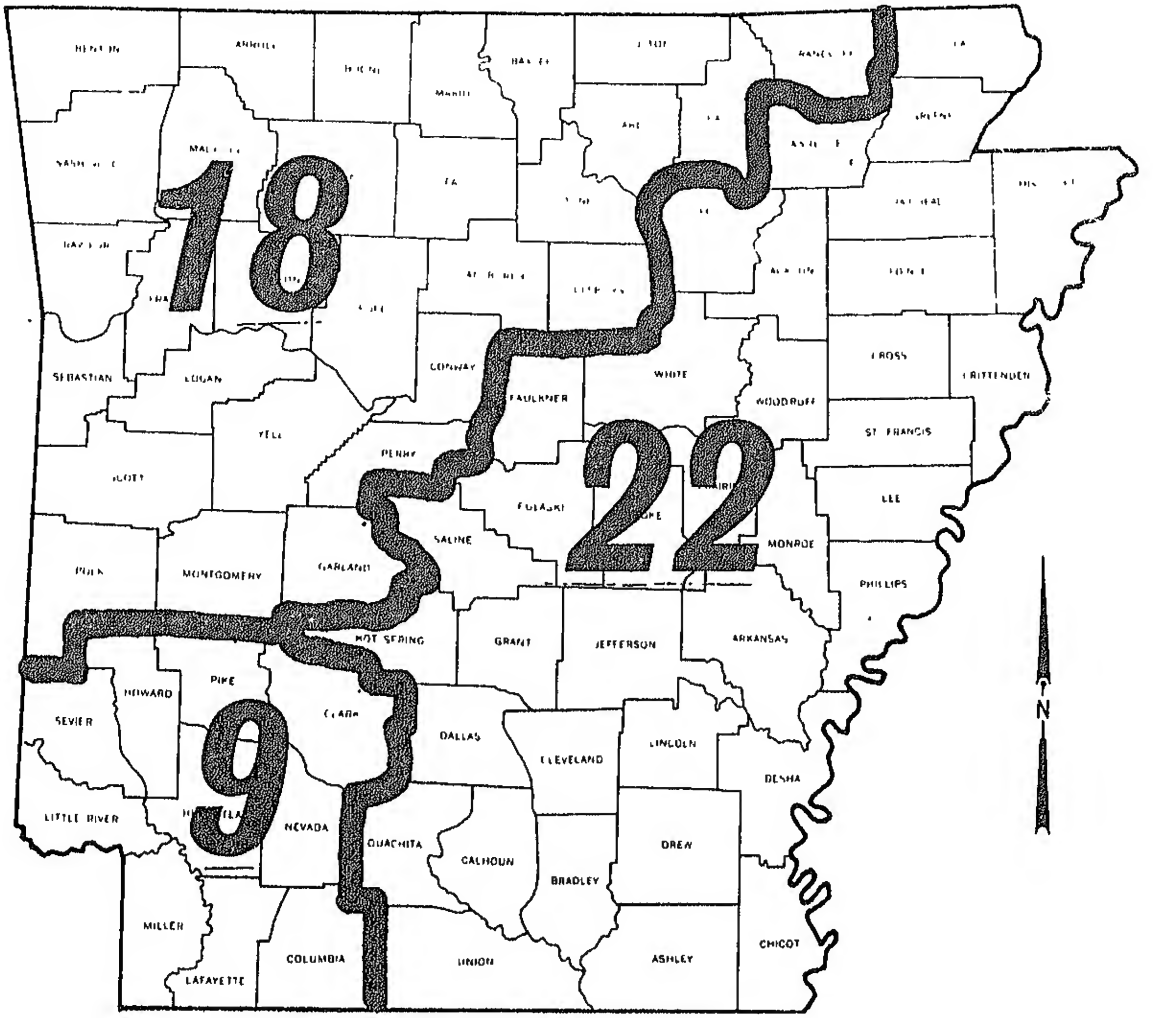

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Figure 2
Erosion–index

E I

Distribution Curves

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Table 2

Distribution of Rainfall Erosion Indexes (E. I. Curves) in Arkansas

Dates		Curve Number 9	18	22	Dates		Curve Number 9	18	22
1 Jan	1	0	0	0	7 Jul	1	54	50	55
	10	1	1	2		10	57	54	59
	20	2	2	4		20	59	58	63
2 Feb	1	4	3	6	8 Aug	1	62	63	67
	10	5	4	8		10	64	61	70
	20	7	5	10		20	67	70	73
3 Mar	1	9	6	13	9 Sep	1	70	74	75
	10	12	8	16		10	72	77	77
	20	14	9	19		20	75	80	79
4 Apr	1	16	10	22	10 Oct	1	78	84	81
	10	20	13	25		10	80	87	82
	20	24	16	30		20	83	90	84
5 May	1	28	19	33	11 Nov	1	85	92	86
	10	34	24	37		10	88	94	88
	20	38	29	41		20	90	96	91
6 Jun	1	42	35	44	12 Dec	1	93	92	94
	10	46	40	48		10	95	98	96
	20	50	45	52		20	98	99	98
						30	100	100	100

PROCEDURE FOR DEVELOPING LOCAL "C" VALUES

Factor C in the USLE measures the combined effect of all the interrelated cover and management variables and is defined as the ratio of soil loss from land cropped under specified conditions to the corresponding loss from clean-tilled continuous fallow. It is usually expressed as an annual value for a particular cropping and management system. Soil loss ratio, as used in table 5, 1/ express a similar ratio for a short time interval within which cover and management effects are relatively uniform. The cropstage soil loss ratios must be combined in proportion to the applicable percentages of EI to derive annual C values.

To compute the value of C for any particular crop and management system on a given field, one needs first to determine the most likely seeding and harvest dates, rate of canopy development, and final canopy cover. Also, the system to be evaluated must be carefully defined with regard to crop and residue management details. Within the broad limits of tables 5 and 6, these tables then supply the research data needed to complete the computation of C. The procedure will be explained by an example that, for illustration purposes, was selected to include many changes in field conditions.

It is not possible to include "C" values for all cropping situations. Table 10 list a number of alternative "C" values. The important factors that effect the "C" value are:

1. How much crop residue is produced.

2. How is the residue managed? Is it buried? If so when? What percent of the ground remains covered after planting?

3. How long does it take for the growing crop to produce an effective canopy? This will vary with the kind of crop, soil fertility and row spacing.

For more information on developing C values, see Agriculture HB 537, pages 29 and 30.

1/ See page 22 Agriculture HB 537.

C FACTOR WORKSHEET

COUNTY _____ DATE _____ PREPARED BY _____

DRY RESIDUE PRODUCED BY CROPS: 70-80 bu. Oats 3000 lbs.-4000 lbs. *** 50-100 bu. Rice 6000-8000 lbs. *** 20-30 bu. Soybeans 3000-5000 lbs. *** 3/4-1.5 Bale Cotton 3000-4000 lbs. *** 50-100 bu. Corn 4000-6000 lbs. *** 4500-6000 lbs. Milo grain 4000-6000 lbs. *** 30-40 bu. Wheat 4000-5000 lbs.

Date	Percent Canopy	Percent Mulch	EI	SLR	C	Crop Year C

Table 3
Assumed Mean Dates for Crop Stage Periods*

Crops	EI Curve 9 & 22 Counties			EI Curve 18 Counties		
	Crop Stage Periods			Crop Stage Periods		
	F (Start of seedbed preparation)	1 (Planting date)	3 (Harvest or grazing date)	F (Start of seedbed preparation)	1 (Planting date)	3 (Harvest or grazing date)
Alfalfa	9/1	10/1	5/1	8/20	9/20	5/1
Annual summer forages						
Millet	4/20	5/10	8/20	4/1	5/1	8/1
Sudan and Sorghum-Sudan Hybrid	4/20	5/10	8/20	4/1	5/1	8/1
Annual Lespedeza	2/1	2/10	9/1	2/1	2/10	9/1
Bahiagrass	3/1	4/1	8/1	3/1	4/1	8/1
Bermudagrass	3/1	5/1	8/1	3/1	4/1	8/1
Corn, grain	3/10	4/20	10/20	3/10	4/1	10/10
Corn, silage	3/10	4/20	8/20	3/10	4/1	8/1
Cotton	3/10	5/1	10/20	3/10	5/1	10/20
Fescue, fall	9/1	9/20	11/10	9/1	10/1	11/10
Fescue, spring	2/20	3/1	11/10	--	--	--
Oats, winter (grain)	9/10	10/1	6/1	9/1	10/1	6/1
Oats, winter (grazing)	9/1	9/20	5/1	8/20	9/1	5/1
Oats, spring (grain)	2/1	2/10	6/1	2/1	2/10	6/1
Orchardgrass, fall	8/20	9/20	11/10	8/15	9/15	11/10
Orchardgrass, spring	2/10	3/1	11/10	2/10	3/1	11/10
Peanuts	3/10	5/1	10/1	3/10	5/10	10/10
Rice	3/10	4/20	10/1	3/10	4/20	10/1
Rye, grazing	9/1	9/20	5/1	8/20	9/1	5/1
Ryegrass	9/1	9/20	5/1	8/20	9/1	5/1
Sorghum, grain	4/1	5/10	10/1	4/1	5/10	10/1
Sorghum, silage	4/1	5/10	8/1	4/1	5/10	8/1
Soybeans	3/10	5/20	10/20	3/10	5/20	10/20
Soybeans, after small grain	6/10	6/10	11/10	6/10	6/10	11/10
Wheat	9/10	10/10	6/10	9/1	10/1	6/10
Winter cover crop	10/1	10/10		10/1	10/15	

*These dates are median or average and variation from them is both possible and probable. Deviations are often necessary when computing C factors.

Table 5

Ratio of Soil Loss from "No-Till" to Corresponding Loss from Continuous Fallow

Line No.	Crops and Amounts of Residues (Lbs. per Acre)	Corn Yield Bu.	Soil Loss Ratio Crop Stage Peri 1 %	2 %	3 %	4R %
	Corn after corn planted in various amounts of corn residues.					
1	1,000 - 1,500		50	40	25	30
2	1,500 - 2,000		40	32	18	25
3	2,000 - 3,000	75+	30	24	14	20
4	3,000 - 4,000		20	16	9	15
5	4,000 - 6,000		7	7	7	7
6	6,000 plus		3	3	3	3
	Corn (for silage or grain) planted in various amounts of small grain residues.					
7	1,000 - 1,500		25	24	14	-
8	1,500 - 2,000		13	13	13	-
9	2,000 - 3,000	75+	7	7	7	-
10	3,000 - 4,000		3	3	3	-
11	4,000 plus		2	2	2	-
	Corn after corn planted in sod.					
12	2,000 - 3,000		2	2	2	-
13	3,000 plus	75+	1	1	1	-
	Corn after corn planted in rye-grass.					
14	2,000 - 3,000		7	7	7	-
15	3,000 - 4,000	75+	3	3	3	-
16	4,000 plus		2	2	2	-
	Small grain after row crop in various amounts of residue after discing.					
17	500 - 750		80	50	7	-
18	750 - 1,000		48	30	7	-
19	1,000 - 1,500		25	16	7	-
20	1,500 - 2,000		13	8	3	-
21	2,000 plus		8	5	2	-

Table 6

Probabilities and Magnitudes of Erosion Indexes

Locations	Probability Values of Erosion Index			Expected Magnitudes of Single-Storm Erosion Index Values				
	50% Probability (1 year out of 2)	20% Probability (1 year out of 5)	5% Probability (1 year out of 20)	Index Values Normally Exceeded Once in				
				1 year	2 years	5 years	10 years	20 years
Arkansas								
Ft. Smith	254	400	614	43	65	101	132	167
Little Rock	308	422	569	41	69	115	158	211
Mt. Home	206	301	432	33	46	68	87	109
Texarkana	325	445	600	51	73	105	132	163
Tennessee								
Memphis	272	384	536	43	55	70	82	91
Mississippi								
Vicksburg	365	493	658	57	78	111	136	161

HOW TO USE THE SOIL LOSS EQUATION

CROPLAND

Example 1. A field of Calloway silt loam in St. Francis County has a slope length of 400 feet and gradient of 1.0 percent. The field is used for the production of continuous soybeans with conventional tillage methods. The average annual yield is 25 bushels per acre. The rows are run up and down the slope.

How to estimate average annual soil loss from this field

1. Determine R value from Figure 1 for St. Francis County (R = 300).
2. Determine K and T values from Table 8 for Calloway silt loam (K = .49 and T = 3).
3. Determine LS factor from Table 9 for slope length of 400 feet and gradient of 1.0 percent (LS = .19).
4. Determine C factor from Table 10 for continuous soybeans, conventional tillage and average yield of 25 bushels per acre (C = .500).
5. Determine P value for up and down hill farming from Table 14 (P = 1.0).
6. Set up the equation A = RKLSCP; insert the appropriate values and solve for A.
   A = 300 x .49 x .19 x .500 x 1
   A = 13.96 tons per acre average annual soil loss.

A quicker method is to refer to the appropriate RKLSP table in the appendix - the one with R = 300 and K = .49. Locate slope length (400 feet) across the top and the percent of slope (1.0) along the left side. Move horizontally to the right from 1.0 percent and vertically down from 400 feet and take a reading where the two intersect. This is the RKLSP value - 27.93. Multiply this figure by the C factor (.500). A = 27.93 x .500 = 13.96 tons per acre.

The maximum allowable soil loss for Calloway silt loam is three tons per acre per year. Therefore, this system of farming does not provide adequate protection.

If the rows are planted on the contour instead of up and down the hill the soil loss would be:
A = 300 x .49 x .19 x .500 x .6 = 8.37 tons per acre.

To determine the soil loss using the appropriate RKLSP table, use the one with R=300, K=.49, rows up and down the hill. The RKLSP value for a 1.0 percent slope 400 feet long, rows run up and down the hill (P = 1.0) is 27.93. To complete the problem, multiply the RKLSP factor x P factor x C factor. A = 27.93 x .6 x .5 = 8.37 tons per acre. The P value for contour cultivation (from Table 14) for 1 percent slope is .60. 8.37 tons per acre still does not meet the minimum requirement - T = 3.

If the field is used for the continuous production of soybeans with no-tillage and rows up and down the hill, the C factor would be .100.

A = 300 x .49 x .20 x.100 x 1 = 2.94 tons.

This system should provide adequate protection as the projected average annual soil loss of 2.94 tons per acre is lower than the T factor of 3.

CONSTRUCTION SITES

Example 2. A shopping center is being built in Cleburne County on Linker fine sandy loam with 2 to 6 percent slopes. Figure 1 shows Cleburne County has an R value of 300. A parking lot has been graded and will be left unprotected until the adjacent buildings are completed.

How to estimate soil loss from this site

1. Determine the depth of the horizon exposed and its K value. Assume this site was cut 18 inches and the surface graded to a 2 percent slope 600 feet long. The K value for the 10 to 25 inch horizon of this soil is .32 (Table 8) and the LS value is .34 (Table 9).
2. There is no cropping system involved and the area will not be contour cultivated. The C factor is 1.0 and the P factor is 1.0.

   A = R x K x LS x C x P

   A = 300 x .32 x .34 x 1 x 1 = 32.64 tons per acre per year.

   The rate of soil loss may be found quicker by using the appropriate RKLSP table - the one with R = 300 and K = .32, rows up and down the hill. Determine the value for a 2 percent slope 600 feet long. The value is 32.64. Multiply 32.64 by C value (1.0). A = 32.64 x 1 = 32.64 tons per acre

To convert tons of soil to cubic yards lost, multiply the tons by the appropriate conversion factor from Table 7. The texture of Linker soil at the 18-inch depth is sandy clay loam and the conversion factor is 1.02. So 32.64 tons times 1.02 = 33.3 cu. yds.

PERIODS LESS THAN ONE YEAR

How to estimate soil losses for periods of less than one year

Example 3. A farmer in White County has plowed and prepared a seedbed for soybeans on March 10. The field has a 4 percent slope that is 200 feet long and has not been terraced. The soil is Linker fine sandy loam. How much soil loss can be expected from March 10 until soybeans are planted on May 20. Assume a crop history of continuous soybeans and a C value equal to .500.

1. Determine the average annual soil loss expected.
   A = RKLSCP = 300 x .24 x .53 x .500 x 1.0 = 19.08 tons per acre per year.
2. Refer to Figure 2 and note that the EI Distribution Curve for Union County is number 22. Next, refer to Table 2 and find the percent of erosive rainfall for March 10 and May 20 under Curve No. 22. They are 16 and 41 respectively, a difference of 25. This indicates that 25 percent of the average rainfall erosive rains and 25 percent of the average annual soil loss may be expected during this period.
3. To estimate the soil loss, multiply the average annual soil loss by the percent of erosive rains for the period involved. Estimated losses = 19.08 x .25 = 4.77 tons per acre.
4. The same procedure is used to estimate soil losses from construction sites. See Table 13 for C values.

INDIVIDUAL STORMS

How to estimate soil losses from individual storms

First obtain an adjusted R value from Table 18 page 54 in Agriculture HB 537. Also obtain an adjusted C value for the actual conditions that exist at the time of the storm by using Table 6 or 7 page 19 of Agriculture HB 537. The soil loss ratio will become the C value since no time factor is involved in a single storm. Proceed by using other factors in the equation.
Soil loss = RKLSCP, in the usual way.

This procedure cannot take into account the effects of antecedent moisture, tillage marks, compaction, soil crusting, etc., which affect soil erosion by water and which are not reasonably predictable. It is not as accurate as average long-term estimates, but it will provide reasonable estimates of single storm losses.

SOIL LOSSES WHEN EROSIVE RAINFALL EXCEEDS AVERAGE (SOIL LOSS PROBABILITIES)

How to estimate soil losses other than the average

Example 3. Refer to Example 1 where the average soil loss per year for a field in St. Francis County is 13.96 tons per acre when the field is used for the continuous production of soybeans with conventional tillage and the rows run up and down the slope. To estimate the soil loss when erosive rainfall exceeds the average (or R value) and is equal to the maximum five-year frequency (20 percent probability or 1 year out of five) use the following procedure.

1. Refer to Table 6 and note that the value of EI for a 20 percent probability is 384 at Memphis, the location nearest St. Francis County for which records are available.

2. Find the value of an adjusted R by dividing the probability EI value by R. In this case, the adjusted R = 384 ÷ 300 = 1.28.
3. Multiply the adjusted R by the average annual soil loss. The soil loss in the St. Francis County field is 1.28 x 13.96 = 17.86 tons per acre in 20 percent of the years.
4. Similarly, losses in the same field for a 20-year frequency (5 percent probability) would be 536 ÷ 300 x 13.96 = 24.56 tons per acre.

PASTURE, RANGELAND, IDLE LAND, AND WOODLAND

The procedure for estimating losses from pasture, idle lands, and woodlands are similar to that for cropland except that appropriate C factors are selected from Tables 11 and 12.

Table 7

Factors for Converting Tons
Per Acre to Cubic Yards Per Acre

Texture	Factor
Sands, loamy sands, sandy loams.	0.70
Sandy clay loams, silt loams, loams and silty clay loams.	0.87
Clay loams, sandy clays, clays and silty clays.	1.02

A P P E N D I X

CONTENTS

TABLE 8
K AND T FACTORS
HYDROLOGIC GROUPS

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Acadia	0-9	.43	4	D
	9-50	.32	-	-
Adaton	0-6	.43	5	D
	6-66	.37	-	-
Agnos				
L	0-7	.49	4	D
CRL,CRSL	0-7	.43	4	D
Alaga	0-99	.17	5	A
Alamance	0-46	.43	4	B
Allegheny				
SIL	0-9	.32	4	B
FSL	0-9	.28	4	B
	9-62	.28	-	-
Allen	0-12	.24	5	B
	12-70	.20	-	-
Alligator				
C	0-7	.32	5	D
SICL	0-7	.43	5	D
	7-60	.24	-	-
Altavista	0-12	.20	4	C
	12-42	.24	-	-
Amagon				
SIL	0-7	.43	5	D
FSL,SL	0-7	.32	5	D
	7-28	.43	-	-
	28-46	.37	-	-
	46-52	.43	-	-

1/ Soil erodibility factor - a measure of rate at which a soil will erode.

2/ Soil-loss tolerance factor - permissable soil loss in tons per acre per year.

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Amy	0-18	.43	5	D
	18-68	.43	-	-
Angie	0-65	.32	3	C
Apison	0-8	.43	3	B
	8-40	.37	-	-
Arkabutla				
SIL	0-6	.37	5	C
	6-65	.32	-	-
Arkana				
CRV-SIL,SICL	0-11	.28	2	C
CR-SIL,CR-SICL	0-11	.32	2	C
SIL,SICL	0-11	.37	-	-
	21-27	.24	-	-
	27-29	.32	-	-
Ashton	0-9	.28	4	D
	9-80	.43	-	-
Ashwood	0-5	.43	3	D
	5-36	.37	-	-
Askew	0-11	.37	5	C
	11-32	.32	-	-
	32-50	.24	-	-
	50-72	.20	-	-
Atkins	0-10	.43	4	D
	10-60	.37	-	-
Augusta	0-9	.15	4	B
	9-65	.24	-	-
Barling	0-72	.37	5	C
Baxter	0-16	.32	4	B
	16-99	.24	-	-
Beulah				
FSL,SL	0-8	.20	5	B
LFS,FS	0-8	.17	5	B
	8-40	.20	-	-
	40-60	.17	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Bibb	0-37	.20	5	C
	37-60	.37	-	-
Blevins	0-72	.37	4	B
Boden	0-7	.24	3	C
	7-11	.32	-	-
	11-32	.28	-	-
	32-42	.32	-	-
	42-50	.24	-	-
Bonn	0-64	.49	3	D
Bosket	0-18	.24	4	B
	18-48	.32	-	-
	48-60	.24	-	-
Boswell				
SIL	0-5	.43	5	D
FSL	0-5	.37	5	D
	5-70	.32	-	-
Bowdre	0-20	.37	5	C
	20-52	.32	-	-
Bowie	0-12	.24	4	B
	12-42	.32	-	-
	42-78	.28	-	-
Braddock	0-10	.20	5	B
	10-60	.17	-	-
Brandon	0-9	.37	3	B
	9-30	.28	-	-
	30-60	.17	-	-
Brewer	0-12	.43	5	C
	12-50	.37	-	-
	50-90	.43	-	-
Brocket				
GR-FSL,GR-SC,GR-L	0-16	.24	5	C
FSL,SL,L	0-16	.28	5	C
	16-58	.32	-	-
	58-72	.24	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Britwater	0-6	.32	3	B
	6-60	.28	-	-
	60-74	.24	-	-
Broseley	0-37	.20	5	B
Bruno	0-80	.17	5	A
Buxin				
SICL	0-6	.32	5	D
C,SIC	0-6	.28	5	D
	6-60	.32	-	-
Caddo	0-30	.43	3	D
	30-87	.37	-	-
Cahaba	0-9	.24	4	B
	9-53	.28	-	-
	53-80	.24	-	-
Calhoun	0-17	.49	3	D
	17-72	.43	-	-
Calloway	0-30	.49	3	C
	30-60	.43	-	-
Cane	0-5	.32	3	B
	5-75	.37	-	-
Captina	0-14	.43	3	C
	14-24	.37	-	-
	24-60	.32	-	-
Carnasaw	0-9	.43	3	C
	9-15	.37	-	-
	15-42	.32	-	-
Carytown	0-15	.43	2	D
Cascilla	0-72	.43	5	B
Caspiana				
SICL	0-11	.32	5	B
SIL	0-11	.37	5	B
	11-60	.32	-	-
Catalpa	0-60	.28	4	C

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Ceda	0-55	.28	5	B
Chastain	0-10	.32	5	D
	10-72	.37	-	-
Chenneby	0-55	.32	5	C
	55-72	.24	-	-
Cherokee	0-15	.43	4	D
Chewacla				
SL,FSL	0-14	.24	5	C
SIL,L	0-14	.28	-	-
SCL,L,SL	14-58	.28	-	-
SIL,CL,SICL	14-58	.32	-	-
	58-70	.32	-	-
Christian	0-6	.37	3	C
	6-65	.28	-	-
Clarksville	0-80	.24	2	B
Cleora				
L,FSL	0-15	.32	5	B
LFS	0-15	.17	5	-
	15-70	.32	-	-
Collins	0-48	.43	5	B
Commerce				
SICL	0-10	.32	5	C
SIL,L,VFSL	0-10	.37	5	C
	10-36	.32	-	-
	36-60	.37	-	-
Conasauga	0-4	.43	2	C
	4-10	.32	-	-
	10-30	.32	-	-
Congaree	0-80	.37	5	B
Convent	0-60	.37	5	C

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR 2/	HYDROLOGIC GROUP
Corydon (See Arkana Series)				
Coushatta				
SIL,VFSL	0-8	.37	5	B
SICL	0-8	.32	5	B
	8-27	.32	-	-
	27-61	.37	-	-
Craig				
SIL,L	0-16	.37	3	C
CR-SIL,CR-L	0-16	.32	3	C
	16-21	.32	-	-
	21-60	.28	-	-
Crevasse	0-60	.15	5	A
Crowley	0-16	.43	4	D
	16-60	.32	-	-
Culleoka				
SIL	0-9	.32	3	B
FSL,SIL	0-9	.28	3	B
	9-27	.28	-	-
	27-33	.17	-	-
Dardanelle	0-23	.37	5	B
	23-91	.32	-	-
Davidson	0-7	.28	5	B
	7-12	.32	-	-
	12-53	.24	-	-
	53-73	.28	-	-
Demopolis				
L,CL,SIL	0-6	.37	1	C
GR-SIL,GRL,GR-CL	0-6	.32	1	C
	6-12	.32	-	-
	12-48	.24	-	-
Desha				
SIL,SICL	0-7	.43	5	D
SIC,C	0-7	.32	5	D
	7-44	.28	-	-
	44-72	.37	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Dexter	0-6	.37	5	B
	6-32	.32	-	-
	32-67	.24	-	-
Doniphan	0-12	.32	4	B
	12-77	.28	-	-
Dubbs				
SIL	0-5	.37	5	B
SICL	0-5	.32	5	B
	5-50	.37	-	-
Dundee	0-56	.32	5	C
Dunning	0-15	.37	3	D
	15-72	.28	-	-
Earle				
SICL	0-6	.37	5	D
C,SIC	0-6	.32	5	D
	6-29	.37	-	-
	29-60	.43	-	-
Egam	0-56	.32	4	C
	56-75	.37	-	-
Elk	0-9	.32	4	C
	9-69	.28	-	-
Elsha	0-10	.32	4	B
	10-60	.24	-	-
Emory	0-60	.37	5	B
Enders				
VFSL,SIL	0-5	.37	3	C
GR-VFSL	0-5	.32	3	C
	5-8	.43	-	-
	8-62	.37	-	-
Ennis	0-60	.28	5	B
Etowah	0-7	.37	5	B
	7-70	.32	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Eutaw				
SIL	0-9	.37	5	D
SICL	0-9	.32	5	D
	9-82	.28	-	-
Falaya	0-65	.43	5	D
Faulkner	0-21	.43	4	C
	21-65	.24	-	-
Fatima	0-67	.37	5	B
Fayetteville				
ST-FSL,ST-L	0-9	.20	4	B
SL,FSL	0-9	.24	4	B
	9-16	.24	-	-
	16-67	.32	-	-
Foley	0-8	.43	3	D
	8-42	.43	-	-
	42-60	.49	-	-
Forestdale	0-6	.43	5	D
	6-48	.28	-	-
Fountain	0-75	.37	3	D
Gallion				
SICL	0-10	.32	5	B
SIL	0-10	.37	5	-
	10-44	.32	-	-
	44-60	.37	-	-
Gassville				
CR-SIL	0-11	.43	3	C
CRV-SIL	0-11	.37	3	C
	11-19	.32	-	-
	19-50	.37	-	-
Georgeville	0-7	.43	3	B
	7-34	.37	-	-
	34-45	.43	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Gepp				
GR-SIL	0-7	.32	4	B
SIL	0-7	.37	4	B
	7-12	.32	-	-
	12-75	.28	-	-
Goldsboro	0-15	.20	5	B
	15-76	.24	-	-
Goldston	0-18	.20	2	C
Gore	0-5	.43	3	D
	5-73	.32	-	-
Greenville	0-6	.24	5	B
	6-72	.17	-	-
Grenada	0-24	.43	3	C
	24-60	.37	-	-
Grubbs	0-5	.49	5	D
	5-27	.37	-	-
	27-60	.49	-	-
Guin	0-60	.37	4	B
Guthrie	0-68	.43	5	D
Hanceville	0-8	.24	3	B
	8-54	.28	-	-
	54-63	.24	-	-
Hartsells	0-13	.28	2	B
	13-36	.32	-	-
Hayti				
FSL	0-6	.32	5	D
	6-72	.37	-	-
Healing	0-60	.37	5	B
Hebert				
SICL	0-10	.32	4	C
SIL,VFSL	0-10	.37	4	C
	10-37	.32	-	-
	37-72	.37	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Hector	0-15	.17	1	D
Henry	0-60	.43	5	D
	60-90	.49	-	-
Herndon	0-9	.43	3	B
	9-48	.37	-	-
	48-68	.43	-	-
Hillemann	0-15	.49	3	C
	15-23	.43	-	-
	23-60	.49	-	-
Hollywood	0-4	.32	3	D
	4-72	.37	-	-
Holston	0-74	.32	5	B
Hontas	0-72	.37	5	B
Houston	0-10	.37	4	D
	10-72	.32	-	-
Huntington	0-11	.37	5	B
	11-60	.43	-	-
Iuka				
LS	0-13	.17	5	C
FSL,L	0-13	.24	5	C
	13-22	.28	-	-
	22-60	.20	-	-
Izagora				
VFSL,FSL	0-11	.28	4	C
L,SIL	0-11	.37	3	C
	11-91	.32	-	-
Jackport	0-5	.43	5	D
	5-46	.32	-	-
	46-65	.43	-	-
Jay	0-16	.43	3	C
	16-29	.37	-	-
	29-72	.32	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Jeanerette				
SICL	0-6	.32	3	C
SIL	0-6	.37	3	C
	6-60	.32	-	-
Jefferson	0-43	.28	4	B
	43-65	.17	-	-
Johnsburg	0-19	.43	3	D
	19-56	.37	-	-
	56-70	.32	-	-
Kalmia	0-14	.20	4	B
	14-32	.24	-	-
	32-60	.10	-	-
Kaufman	0-72	.32	5	D
Keo	0-56	.37	5	B
Kipling				
SIL	0-3	.43	4	D
SICL	0-3	.32	4	D
	3-62	.32	-	-
Kirvin	0-11	.37	4	C
	11-64	.32	-	-
Kobel				
SIC	0-5	.37	5	D
SICL	0-5	.43	5	D
SIL	0-5	.49	5	D
	5-72	.37	-	-
Lafe	0-60	.49	1	D
Lagrange	0-33	.24	5	D
	33-72	.37	-	-
Latanier	0-6	.37	5	D
	6-30	.32	5	D
	30-60	.37	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Latonia				
FSL	0-4	.20	4	B
LS	0-4	.17	4	B
	4-32	.20	-	-
	32-74	.17	-	-
Leadvale	0-48	.43	3	C
	48-58	.24	-	-
Leaf	0-9	.32	3	D
	9-72	.32	-	-
Leeper	0-50	.28	4	D
Leesburg	0-6	.24	5	B
	6-65	.32	-	-
Lexington	0-38	.49	4	B
	38-65	.24	-	-
Lindside	0-17	.37	4	B
Linker				
FSL,L,GR-FSL	0-5	.24	3	B
ST-FSL,ST-L	0-5	.20	3	B
	5-10	.24	-	-
	10-25	.32	-	-
	25-35	.28	-	-
Lobelville	0-65	.28	5	B
Locust	0-64	.37	3	C
	64-70	.28	-	-
Lonoke	0-32	.24	5	B
	32-60	.28	-	-
	60-80	.24	-	-
Loring	0-65	.43	3	C
Lucy	0-24	.17	5	B
	24-35	.24	-	-
	35-70	.28	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Luverne	0-5	.37	3	C
	5-41	.28	-	-
Mantachie	0-61	.28	5	C
Marietta	0-62	.28	5	C
Marvell	0-36	.24	5	B
	36-60	.37	-	-
Mashulaville	0-26	.32	4	D
	26-62	.28	-	-
Mayes	0-14	.49	5	D
	14-60	.43	-	-
Mayhew	0-7	.37	5	D
	7-80	.32	-	-
McCroy	0-15	.24	3	D
	15-27	.32	-	-
	27-52	.49	-	-
McGehee	0-17	.43	5	C
	17-24	.37	-	-
	24-60	.32	-	-
McKamie	0-5	.43	3	D
	5-36	.32	-	-
	36-60	.37	-	-
Mecklenburg				
FSL	0-6	.28	4	D
GR-L	0-6	.24	4	D
	6-36	.32	-	-
Melvin	0-60	.43	5	D
Memphis	0-77	.37	5	B
Mhoon				
SICL	0-6	.37	5	D
SIL	0-6	.43	5	D
	6-60	.37	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Millwood	0-7	.49	5	D
	7-72	.37	-	-
Moko	0-10	.32	1	D
Monogahela	0-12	.43	3	C
	12-50	.37	-	-
Montevallo	0-16	.37	2	D
Moreland				
SIL	0-10	.43	5	D
SICL	0-10	.37	5	D
C	0-60	.32	5	D
Morganfield	0-50	.43	5	B
Morse	0-60	.37	4	D
Mountainburg	0-6	.17	1	D
	6-18	.24	-	-
Muldrow				
SICL, CL	0-18	.43	5	D
SIL	0-18	.49	5	D
	18-70	.43	-	-
Musella				
GR-CL,GR-L	0-4	.28	2	C
CL,L	0-4	.32	2	C
	4-18	.32	-	-
Muskogee	0-14	.43	5	C
	14-26	.37	-	-
	26-72	.32	-	-
Myatt	0-10	.32	5	D
	10-50	.28	-	-
	50-72	.24	-	-
Nacogdoches	0-80	.32	5	C
Natchez	0-65	.37	5	B

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Nella	0-14	.20	5	B
	14-70	.17	-	-
Newark	0-9	.43	5	B
	9-60	.43	-	-
Newellton	0-5	.37	5	D
	5-14	.32	-	-
	14-60	.37	-	-
Newtonia				
L,SIL	0-9	.37	5	B
SICL	0-9	.32	5	B
	9-18	.37	-	-
	18-61	.32	-	-
Nixa	0-32	.43	2	C
	32-35	.37	-	-
Noark	0-10	.32	3	B
	10-17	.28	-	-
	17-70	.24	-	-
Norfolk	0-17	.17	5	B
	17-80	.24	-	-
Norwood				
SIL	0-11	.43	5	B
SICL	0-11	.32	5	B
	11-60	.43	-	-
Nugent	0-60	.17	5	A
Ochlockonee	0-44	.20	5	B
	44-72	.17	-	-
Oklared				
SICL	0-10	.28	5	B
FSL,VFSL,L	0-10	.32	5	B
	10-60	.32	-	-
Oktibbeha	0-70	.32	3	D

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Ora	0-7	.32	3	C
	7-26	.37	-	-
	26-56	.32	-	-
Orangeburg				
LS,LFS	0-7	.20	5	B
SL,FSL	0-7	.24	5	B
	7-64	.24	-	-
Ouachita	0-19	.37	5	C
	19-69	.32	-	-
	69-77	.24	-	-
Ozan	0-15	.32	5	D
	15-72	.43	-	-
Paron	0-9	.24	4	B
	9-56	.28	-	-
	56-72	.24	-	-
Parsons	0-12	.49	4	D
	12-80	.43	-	-
Patterson				
FSL	0-9	.20	5	C
LFS	0-9	.17	5	C
	9-32	.20	-	-
	32-52	.17	-	-
Pembroke	0-9	.32	4	C
	9-96	.28	-	-
Peridge	0-8	.37	5	B
	8-42	.32	-	-
	42-54	.28	-	-
	54-74	.24	-	-
Perry				
SICL	0-6	.32	5	D
C,SIC	0-6	.24	5	D
	6-60	.28	-	-
Pheba	0-21	.49	3	C
	21-60	.43	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Philo	0-40	.37	5	B
Pickens	0-17	.28	2	D
Pickwick	0-6	.43	5	B
	6-80	.37	-	-
Pineville	0-13	.17	3	B
	13-45	.20	-	-
	45-56	.15	-	-
Pirum	0-11	.24	3	B
	11-36	.32	-	-
Pledger	0-70	.32	5	D
Pope	0-85	.28	5	B
Porters	0-7	.24	4	B
	7-28	.24	-	-
Portia	0-10	.24	3	C
	10-24	.37	-	-
	24-46	.32	-	-
	46-72	.28	-	-
Portland				
SIC,C	0-8	.32	5	D
SIL	0-8	.43	5	D
	8-65	.32	-	-
Prentiss	0-73	.24	3	C
Providence	0-23	.43	3	C
	23-60	.32	-	-
Pulaski				
FSL,L	0-10	.32	5	B
LFS	0-10	.17	5	B
	10-64	.32	-	-
Razort	0-54	.37	5	B
	54-60	.32	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Rexor	0-70	.37	5	A
Rilla	0-8	.37	5	B
	8-69	.32	-	-
Roanoke	0-7	.43	4	D
	7-50	.32	-	-
Robinsonville	0-70	.32	5	B
Roellen	0-14	.32	5	D
	14-72	.37	-	-
Roxana	0-70	.37	5	B
Ruston				
GR,FSL	0-16	.28	5	B
FSL,SL,LFS	0-16	.32	5	B
	16-41	.28	-	-
	41-47	.32	-	-
	47-92	.28	-	-
Sacul	0-44	.32	3	C
	44-72	.37	-	-
Saffell				
GR-FSL,GR-SL	0-8	.20	4	B
FSL,SL,LFS	0-8	.24	4	B
	8-50	.28	-	-
	50-60	.17	-	-
Sallisaw	0-36	.32	4	B
	36-40	.28	-	-
Samba	0-6	.49	5	D
	6-12	.43	-	-
	12-66	.37	-	-
Sardis	0-72	.37	5	C
Savannah				
FSL	0-11	.37	3	C
SL	0-11	.24	3	C
	11-68	.28	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Sawyer	0-5	.43	3	C
	5-29	.37	-	-
	29-80	.32	-	-
Secesh	0-60	.37	4	B
Sequatchie	0-72	.24	5	B
Severn	0-60	.32	5	B
Sharkey				
SIL	0-9	.43	5	D
SICL	0-9	.37	5	D
C	0-9	.24	5	D
	9-60	.28	-	-
Sherwood	0-12	.37	3	B
	12-38	.32	-	-
	38-50	.28	-	-
Shubuta	0-8	.37	3	C
	8-70	.28	-	-
Sloan	0-60	.37	5	B
Smithdale				
Fsl	0-11	.28	5	B
LS	0-11	.17	5	B
	11-60	.24	-	-
Smithton	0-72	.32	5	D
Sogn	0-9	.32	1	D
Spadra	0-39	.37	5	B
	39-72	.24	-	-
Staser	0-52	.32	5	B
State	0-60	.42	5	B
Steele	0-28	.20	5	C
	28-48	.32	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Stendal	0-55	.37	5	B
Sterlington	0-60	.37	5	B
Stough	0-20	.28	3	C
	20-68	.37	-	-
Stuttgart	0-22	.43	3	D
	22-31	.32	-	-
	31-45	.37	-	-
	45-60	.43	-	-
Summit	0-18	.37	4	C
	18-60	.32	-	-
Sumter	0-30	.37	3	C
Susquehanna				
FSL,SL,SIL,L	0-5	.43	3	D
LS	0-5	.17	3	D
	5-77	.32	-	-
Taft	0-64	.43	4	C
	64-80	.37	-	-
Taloka	0-28	.49	5	D
	28-78	.43	-	-
Tate	0-7	.24	4	B
	7-38	.28	-	-
Terouge	0-72	.32	5	D
Tiak	0-8	.32	4	C
	8-26	.37	-	-
	26-68	.32	-	-
Tichnor	0-36	.43	5	D
	36-65	.37	-	-
Tippah	0-31	.43	4	C
	31-60	.24	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Tiptonville	0-12	.32	5	B
	12-72	.28	-	-
Toine				
L,SIL	0-13	.37	3	C
FSL	0-13	.24	3	C
	13-55	.32	-	-
	55-72	.24	-	-
Tonti	0-6	.37	3	C
	6-29	.32	-	-
	29-42	.28	-	-
Townley	0-6	.37	2	C
	6-22	.32	-	-
Trebloc	0-65	.37	3	D
Trinity	0-80	.32	5	D
Troup	0-40	.17	5	A
	40-99	.20	-	-
Tuckerman	0-18	.24	5	D
	18-34	.32	-	-
	34-52	.24	-	-
	52-62	.20	-	-
Tunica	0-28	.32	3	D
	28-48	.43	-	-
Tuscumbia	0-50	.28	5	D
Tutwiler	0-24	.24	4	B
	24-48	.17	-	-
Una	0-57	.28	5	D
Vaiden	0-79	.32	4	D
Ventris	0-8	.43	2	D
	8-31	.37	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Vicksburg	0-55	.43	5	B
Wabbaseka				
C,SIC	0-18	.37	5	D
SICL	0-18	.43	5	D
	18-42	.37	-	-
	42-80	.2	-	-
Waben	0-15	.28	5	B
	15-66	.24	-	-
Wardell	0-16	.43	4	C
	16-37	.37	-	-
	37-72	.32	-	-
Waverly	0-60	.43	5	D
Waynesboro	0-10	.24	5	B
	10-60	.28	-	-
Wehadkee	0-8	.24	5	D
	8-40	.32	-	-
	40-50	.28	-	-
Weston				
LFS	0-9	.20	5	D
FSL,SL	0-9	.24	-	-
	9-44	.24	-	-
	44-54	.32		
Wickham	0-7	.20	5	B
	7-40	.24	-	-
Wilcox	0-5	.37	4	D
	5-57	.32	-	-
Wilson	0-6	.43	5	D
	6-80	.37	-	-
Wing				
SL	0-5	.37	1	D
SIL,L	0-5	.49	1	D
	5-60	.49	-	-

SERIES	DEPTH (Inches)	K 1/ FACTOR	T 2/ FACTOR	HYDROLOGIC GROUP
Wrightsville				
SIL,SL	0-16	.49	5	D
SICL	0-16	.43	5	D
	16-50	.37	-	-
	50-66	.43	-	-
Yorktown	0-60	.32	5	D
Zachary	0-28	.49	5	D
	28-60	.43	-	-

Table 9
SOIL LOSS EQUATION LS FACTORS PAGE ONE

PERCENT SLOPE	SLOPE LENGTH IN FEET 50.	75.	100.	110.	120.	130.	140.	150.	200.	250.	300.
0.25	0.06	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.11	0.11
0.50	0.08	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.12	0.13	0.13
1.00	0.10	0.11	0.12	0.13	0.13	0.14	0.14	0.14	0.15	0.17	0.18
2.00	0.16	0.18	0.20	0.20	0.21	0.21	0.22	0.22	0.24	0.26	0.27
3.00	0.23	0.26	0.28	0.29	0.30	0.31	0.31	0.32	0.35	0.37	0.39
4.00	0.30	0.35	0.40	0.41	0.43	0.44	0.45	0.47	0.52	0.57	0.62
5.00	0.37	0.46	0.53	0.56	0.58	0.61	0.63	0.65	0.75	0.84	0.92
6.00	0.47	0.58	0.67	0.70	0.73	0.76	0.79	0.82	0.95	1.06	1.16
7.00	0.58	0.71	0.82	0.86	0.90	0.94	0.97	1.01	1.16	1.30	1.42
8.00	0.70	0.85	0.99	1.04	1.08	1.13	1.17	1.21	1.40	1.56	1.71
9.00	0.82	1.01	1.17	1.23	1.28	1.33	1.38	1.43	1.65	1.85	2.03
10.00	0.96	1.18	1.36	1.43	1.50	1.56	1.62	1.67	1.93	2.16	2.37
11.00	1.11	1.36	1.58	1.65	1.73	1.80	1.86	1.93	2.23	2.49	2.73
12.00	1.27	1.56	1.80	1.89	1.97	2.05	2.13	2.21	2.55	2.85	3.12
13.00	1.44	1.76	2.04	2.14	2.23	2.32	2.41	2.50	2.88	3.23	3.53
14.00	1.62	1.98	2.29	2.40	2.51	2.61	2.71	2.81	3.24	3.62	3.97
15.00	1.81	2.21	2.56	2.68	2.80	2.91	3.02	3.13	3.62	4.04	4.43
16.00	2.00	2.45	2.83	2.97	3.11	3.23	3.35	3.47	4.01	4.48	4.91
20.00	2.88	3.53	4.07	4.27	4.46	4.65	4.82	4.99	5.76	6.45	7.06
25.00	4.16	5.10	5.89	6.17	6.45	6.71	6.97	7.21	8.33	9.31	10.20
30.00	5.62	6.88	7.95	8.34	8.71	9.06	9.41	9.74	11.24	12.57	13.77
40.00	8.94	10.95	12.65	13.27	13.86	14.42	14.97	15.49	17.89	20.00	21.91
50.00	12.60	15.43	17.82	18.69	19.52	20.32	21.09	21.83	25.20	28.18	30.87
60.00	16.37	20.05	23.15	24.28	25.36	26.39	27.39	28.35	32.74	36.60	40.10
70.00	20.07	24.58	28.39	29.77	31.10	32.37	33.59	34.77	40.15	44.89	49.17
80.00	23.60	28.90	33.37	35.00	36.56	38.05	39.49	40.88	47.20	52.77	57.81
90.00	26.87	32.92	38.01	39.86	41.64	43.34	44.97	46.55	53.75	60.10	65.84
100.00	29.87	36.58	42.24	44.30	46.27	48.16	49.98	51.74	59.74	66.79	73.17

Table 9
SOIL LOSS EQUATION LS FACTORS PAGE TWO
SLOPE LENGTH IN FEET

PERCENT SLOPE	350.	400.	450.	500.	600.	700.	800.	1000.	1200.	1600.	2000.
0.25	0.12	0.12	0.13	0.13	0.14	0.15	0.15	0.16	0.17	0.19	0.20
0.50	0.14	0.14	0.15	0.16	0.16	0.17	0.18	0.19	0.20	0.22	0.24
1.00	0.18	0.19	0.20	0.20	0.22	0.23	0.24	0.25	0.27	0.29	0.31
2.00	0.29	0.30	0.31	0.32	0.34	0.36	0.37	0.40	0.42	0.46	0.49
3.00	0.41	0.43	0.45	0.46	0.49	0.51	0.53	0.57	0.60	0.66	0.70
4.00	0.66	0.69	0.73	0.76	0.81	0.87	0.91	1.00	1.08	1.21	1.32
5.00	1.00	1.07	1.13	1.19	1.31	1.41	1.51	1.69	1.85	2.14	2.39
6.00	1.25	1.34	1.42	1.50	1.64	1.78	1.90	2.12	2.33	2.69	3.00
7.00	1.54	1.65	1.75	1.84	2.02	2.18	2.33	2.60	2.85	3.30	3.68
8.00	1.85	1.98	2.10	2.21	2.42	2.62	2.80	3.13	3.43	3.96	4.43
9.00	2.19	2.34	2.48	2.62	2.87	3.10	3.31	3.71	4.06	4.69	5.24
10.00	2.56	2.73	2.90	3.06	3.35	3.62	3.87	4.33	4.74	5.47	6.12
11.00	2.95	3.16	3.35	3.53	3.87	4.18	4.46	4.99	5.47	6.32	7.06
12.00	3.37	3.60	3.82	4.03	4.42	4.77	5.10	5.70	6.25	7.21	8.07
13.00	3.82	4.08	4.33	4.56	5.00	5.40	5.77	6.46	7.07	8.17	9.13
14.00	4.29	4.59	4.86	5.13	5.62	6.07	6.49	7.25	7.95	9.17	10.26
15.00	4.79	5.12	5.43	5.72	6.27	6.77	7.24	8.09	8.86	10.24	11.45
16.00	5.31	5.67	6.02	6.34	6.95	7.51	8.03	8.97	9.83	11.35	12.69
20.00	7.63	8.15	8.65	9.12	9.99	10.79	11.53	12.90	14.13	16.31	18.24
25.00	11.02	11.78	12.49	13.17	14.43	15.58	16.66	18.62	20.40	23.56	26.34
30.00	14.88	15.90	16.87	17.78	19.48	21.04	22.49	25.15	27.55	31.81	35.57
40.00	23.67	25.30	26.84	28.29	30.99	33.47	35.79	40.01	43.83	50.61	56.59
50.00	33.34	35.64	37.81	39.85	43.66	47.16	50.41	56.36	61.74	71.29	79.71
60.00	43.31	46.30	49.11	51.77	56.71	61.25	65.48	73.21	80.20	92.60	103.54
70.00	53.11	56.78	60.23	63.48	69.54	75.12	80.30	89.78	98.35	113.57	126.97
80.00	62.44	66.75	70.80	74.63	81.76	88.31	94.41	105.55	115.62	133.51	149.27
90.00	71.11	76.02	80.63	84.99	93.11	100.57	107.51	120.20	131.68	152.05	169.99
100.00	79.03	84.49	89.61	94.46	103.48	111.77	119.49	133.59	146.34	168.98	188.93

// PAUSE

Table 10
Cropping Management Factors
(Average "C" Factor Values)
Arranged in Order of Effectiveness for Cropping Systems in Arkansas

Order	Cropping System	Yields per Acre	Average Annual "C" Value
1	Meadow, well established grass and legume. Excellent cover	2.5+ ton	.004
2	Meadow, well established grass and legume. Good cover	1-2 ton	.010
3	Meadow, well established, Sericea lespedeza		.010
4	Annual lespedeza - seed, rd.l.		.010
5	Orchard - Continuous cover. Annual lespedeza		.010
6	Annual lespedeza, well established. Hay or grazed	2 ton	.020
7	Continuous Corn, No-til, rd.l. Minimum residue 4,000 lbs./acre	70 bu.	.070
8	Continuous grain sorghum, No-til, rd.l. Residue minimum 4,000 lbs. per acre	4,000 lbs.	.070
9	Winter cover crop orchard. Minimum seedbed preparation. Mow about April and mow summer growth		.080
10	Soybeans (No-til) - Double cropped with small grain. Minimum seedbed preparation for small grain	Beans, 25 bu. Wheat, 35 bu.	.080
11	Soybeans - small grain, Soybeans, Rice. Soybeans and small grain No-til planted. Start seedbed preparation for rice after April 1		.100
12	Continuous Rice. Rd.l. Residue rolled soon after harvest. Seedbed preparation about March 1	100 bu.	.100
13	Continuous Soybeans, rd.l. No-til. Minimum 4,000 lbs. residue/acre	Beans, 30 bu.	.100

Table No. 10 (Continued)

Order	Cropping System	Yields per Acre	Average Annual "C" Value
14	Rice, Rice, Soybeans. Rd.l. Prepare seedbed about one month before planting new crop. Contour irrigate rice and soybeans	Rice, 100 bu. Beans, 25 bu.	.110
15	Corn rd.l. A. lespedeza, A. lespedeza. Corn residue av. 4,000 lbs. per acre, conventional tillage	Corn, 70 bu. A.lesp. 1½ ton	.110
16	Continuous Corn (silage). Residue 1,500 lbs./acre. Winter cover crop each year - grazed. No-til	Silage, 15 ton	.120
17	Continuous small grain, rd.l. Minimum seedbed preparation immediately prior to planting	Wheat, 30 bu. Oats, 60 bu.	.120
18	Continuous Corn, rd.l. No-til. Average 3,500 lbs. residue/year	Corn, 50 bu.	.120
19	Continuous Soybeans, rd.l. No-til. Average 3,500 lbs. residue/year	Beans, 20 bu.	.120
20	Continuous grain sorghum, rd.l. No-til. Average 3,500 lbs. residue per year	Grain, 3,500 lbs.	.120
21	Small grain-Soybeans double cropped, broadcast, rd.l. Minimum seedbed preparation	Oats, 70 bu. Wheat, 35 bu. Soybeans, 25 bu.	.140
22	Continuous small grain, rd.l. Conventional seedbed preparation	Wheat, 30 bu. Oats, 60 bu.	.150
23	Corn, Corn, A. lespedeza, A. lespedeza. Minimum corn residue 4,000 lbs./acre. Conventional tillage	Corn, 60 bu. Lesp. 1½ ton	.150
24	Soybeans, Wheat, Soybeans, rd.l. Beans No-til planted. Seedbed for wheat light discing	Beans, 30 bu. Wheat, 40 bu.	.150
25	Rice, Rice Soybeans, rd.l. Prepare seedbed soon after harvest. Soybeans non-irrigated	Rice, 100 bu. Beans, 25 bu.	.170
26	Rice, Rice, Soybeans, Soybeans. Seedbed preparation delayed until after April 1. Both crops irrigated	Rice, 100 bu. Beans, 25 bu.	.190

Table No. 10 (Continued)

Order	Cropping System	Yields per Acre	Average Annual "C" Value
27	Soybeans-Wheat, Soybeans, Soybeans, Soybeans-Wheat, Soybeans, Cotton. Soybeans "No-til." Prepare seedbed for wheat by light discing or with tiller leaving most of residue on soil surface. Prepare conventional seedbed for cotton after April 1.	Beans, 30 bu. Beans (after Wheat) 25 bu. Cotton, 600 lbs. lint	.190
28	Continuous Corn rd.l. Minimum seedbed preparation after March 15. No cultivation. Minimum residue 4,000 lbs./acre	Corn, 70 bu.	.190
29	Continuous Grain sorghum rd.l. Minimum seedbed preparation after April 1. No cultivation. Minimum residue 4,000 lbs./acre	Grain, 4,200 lbs.	.190
30	Continuous Soybeans rd.l. Minimum seedbed preparation after April 15. No cultivation. Minimum residue 4,000 lbs./acre	Beans, 25 bu.	.190
31	Continuous Soybeans, rd.l. "Stubble plant." Minimum cultivation	Beans, 30 bu.	.200
32	Continuous Cotton, rd.l. "Stubble plant." Minimum cultivation	Cotton (lint) 500 lbs.	.200
33	Continuous Corn, rd.l. Minimum seedbed preparation after March 15. No cultivation	Corn, 70 bu.	.200
34	Continuous Grain sorghum, rd.l. Minimum seedbed preparation after April 1. No cultivation	Grain, 4,200 lbs.	.200
35	Rice, Rice, Soybeans, Soybeans, rd.l. Soybeans non-irrigated. Conventional seedbed preparation	Rice, 100 bu. Soybeans, 25 bu.	.210
36	Small grain, Small grain, Small grain-Soybeans, rd.l. Conventional seedbed preparation	Oats, 70 bu. Wheat, 35 bu. Beans, 20 bu.	.230

Table No. 10 (Continued)

Order	Cropping System	Yields per Acre	Average Annual "C" Value
37	Rice, Soybeans, Soybeans, rd.l. Both crops irrigated with levees. Conventional seed bed preparation	Rice, 100 bu. Beans, 25 bu.	.250
38	Continuous Corn, rd.l. Effective winter cover crop each year	Corn, 70 bu.	.260
39	Sudan (or hybrids) double cropped with small grain. Both crops fertilized and grazed. "No-til" planted	Sudan, 5 AUM Sm.grain 4 AUM	.260
40	Soybeans-small grain double cropped, rd.l. Conventional seedbed preparation	Beans, 25 bu. Wheat, 30 bu. Oats, 60 bu.	.300
41	Sudan (or hybrids) double cropped with small grain. Both crops well fertilized and grazed. Minimum seedbed preparation each crop	Sudan, 5 AUM Sm.grain 4 AUM	.300
42	Continuous Corn, rd.l. Effective winter cover crop every 2nd year. Conventional seedbed preparation.	Corn, 60 bu.	.300
43	Rice, Soybeans, Soybeans, Soybeans, rd.l. Conventional seedbed preparation and cultivation. Rice flood irrigated	Rice, 100 bu Beans, 25 bu.	.330
44	Continuous Corn, rd.l. Conventional tillage. Prepare seedbed after March 15	Corn, 75 bu.	.330
45	Continuous Corn, rd.l. Effective winter cover crop every third year	Corn, 60 bu.	.350
46	Continuous Corn (silage). Effective cover crop each year. Conventional tillage	Silage, 15 ton	.350
47	Continuous Corn, rd.l. Effective cover crop each year. Conventional tillage	Corn, 45 bu.	.350

Table No. 10 (Continued)

Order	Cropping System	Yields per Acre	Average Annual "C" Value
48	Continuous Cotton, rd.l. High fertility. Effective winter cover crop each year. Conventional tillage	Lint, 600 lbs.	.350
49	Continuous Soybeans, rd.l. Prepare conventional seedbed after April 1	Beans, 25 bu.	.350
50	Continuous Soybeans, rd.l. Conventional tillage	Beans, 35 bu.	.350
51	Continuous Soybeans, rd.l. Effective cover crop each year	Beans, 20 bu.	.350
52	Continuous Cotton, rd.l. Effective winter cover crop each year	Lint, 450 lbs.	.350
53	Cotton, Cotton, Soybeans, Soybeans. Prepare conventional seedbed for cotton after April 1. Soybeans, no-til	Lint, 600 lbs. Beans, 30 bu.	.350
54	Continuous Corn, rd.l. High fertility. Conventional seedbed preparation	Corn, 75 bu.	.350
55	Continuous Corn, rd.l. Winter cover crop every 2nd year. Conventional tillage.	Corn, 45 bu.	.400
56	Soybeans, Wheat-Soybeans (double cropped), rd.l. Conventional seed bed preparation	Beans, 30 bu. Beans, following Wheat, 25 bu. Wheat, 40 bu.	.400
57	Continuous Cotton. Residue shredded and left on soil surface until about April 1	Lint, 500 lbs.	.430
58	Continuous Soybeans, rd.l. Conventional tillage	Beans, 30 bu.	.450
59	Cotton, Cotton, Soybeans, Soybeans, rd.l. Conventional tillage. Start seedbed March 1	Lint, 600 lbs. Beans, 30 bu.	.450

Table No. 10 (Continued)

Order	Cropping System	Yields per Acre	Average Annual "C" Value
60	Continuous Cotton, rd.l. Effective cover crop every third year. Conventional tillage	Lint, 500 lbs.	.460
61	Continuous Corn, rd.l. Conventional tillage	Corn, 50 bu.	.460
62	Cotton-winter cover, Cotton, Soybeans, Soybeans. Conventional tillage	Lint, 500 lbs. Beans, 25 bu.	.460
63	Continuous Soybeans, rd.l. Conventional tillage	Beans, 25 bu.	.500
64	Continuous Cotton, rd.l. Conventional tillage	Lint, 500 lbs.	.500
65	Cotton, Soybeans, Soybeans, rd.l. Conventional tillage	Lint, 500 lbs. Beans, 25 bu.	.500
66	Continuous Cotton, rd.l. Conventional tillage	Lint, 450 lbs.	.550
67	Continuous Cotton, rd.l. Conventional tillage	Lint, 400 lbs.	.580
68	Continuous Corn for silage. Conventional tillage	Silage, 15 ton	.580
69	Continuous Soybeans, rd.l.	Beans, 15 bu.	.580
70	Continuous fallow. (No cover. Example: bare disturbed area.)		1.00

Table 11

"C" Values for Pasture, Rangeland, and Idle Land 1/
Also Woodland Grazed, Burned, or Recently Harvested 5/

Vegetal Canopy			Cover That Contacts The Surface					
Type and Height of Raised Canopy 2/	Canopy Cover 3/ (Percent)	Type 4/	Percent of Perennial Ground Cover					
			0	20	40	60	80	95-100
No appreciable canopy of tall weeds or brush		G	.45	.20	.10	.042	.013	.003
		W	.45	.24	.15	.090	.043	.011
Canopy of tall weeds or short brush (0.5 m fall ht.) (20 in. fall ht.)	25	G	.36	.17	.09	.038	.012	.003
		W	.36	.20	.13	.082	.041	.011
	50	G	.26	.13	.07	.035	.012	.003
		W	.26	.16	.11	.075	.039	.011
	75	G	.17	.10	.06	.031	.011	.003
		W	.17	.12	.09	.067	.038	.011
Appreciable brush or bushes (2 m fall ht.) (6.5 ft. fall ht.)	25	G	.40	.18	.09	.040	.013	.003
		W	.40	.22	.14	.085	.042	.011
	50	G	.34	.16	.085	.038	.012	.003
		W	.34	.19	.13	.081	.041	.011
	75	G	.28	.14	.08	.036	.012	.003
		W	.28	.17	.12	.077	.040	.011
Trees but no appreciable low brush (4 m fall ht.) (13 ft. fall ht.)	25	G	.42	.19	.10	.041	.013	.003
		W	.42	.23	.14	.087	.042	.011
	50	G	.39	.18	.01	.040	.013	.003
		W	.39	.21	.14	.085	.042	.011
	75	G	.36	.17	.09	.039	.012	.003
		W	.36	.20	.13	.083	.041	.011

1/ These values apply to "native pastures," to long uncropped cropland, and to similar lands having a herbaceous cover that is usually of low quality and which often includes brush or trees. The soil profile is relatively undisturbed, and plant roots proliferate in the surface layer. All values assume random but not necessarily uniform distribution of vegetation and mulch of appreciable depth where mulch exists. Lands devoid of cover and not a part of a cropping system have a C value of 1.00.

2/ Average fall height of waterdrops from canopy to soil surface: m = meters, in. - inches, ft. = feet.

3/ Portion of total-area surface that would be hidden from view by canopy in a vertical projection, (a bird's-eye view).

4/ G: Cover at surface is green, grasslike plants, decaying compacted duff, or litt
W: Cover at surface is mostly broadleaf, herbaceous plants (as weeds) with littl lateral-root network near the surface, and/or undecayed residue.

5/ Multipy value by 0.7 for woodland grazed, burned or recently harvested.

6/ TABLE 12—*Factor C for undisturbed forest land*[1]

Percent of area covered by canopy of trees and undergrowth	Percent of area covered by duff	Factor C[2]
100 75	100 90	0001-.001
70-45	85-75	002- 004
40-20	70-40	.003-.009

[1] Where effective litter cover is less than 40 percent or canopy cover is less than 20 percent, use table 11. Also use table 11 where woodlands are being grazed, harvested, or burned.

[2] The ranges in listed C values are caused by the ranges in the specified forest litter and canopy covers and by variations in effective canopy heights. For mechanically prepared sites use table 12A.

6/ TABLE 12A.—*Factor C for mechanically prepared woodland sites*

Site preparation	Mulch cover[1]	Soil condition[2] and weed cover[3]							
		Excellent		Good		Fair		Poor	
		NC	WC	NC	WC	NC	WC	NC	WC
	Percent								
Disked, raked, or bedded[4]	None	0.52	0.20	0 72	0 27	0.85	0 32	0.94	0 36
	10	.33	.15	.46	.20	.54	.24	60	.26
	20	.24	.12	.34	.17	.40	.20	.44	.22
	40	.17	.11	23	.14	.27	.17	.30	19
	60	.11	.08	.15	.11	.18	.14	.20	.15
	80	.05	.04	.07	.06	.09	.08	.10	.09
Burned[5] . . .	None	.25	.10	.26	.10	.31	.12	.45	.17
	10	.23	.10	.24	.10	.26	.11	.36	.16
	20	.19	.10	.19	.10	.21	.11	.27	.14
	40	.14	.09	.14	.09	.15	.09	.17	.11
	60	.08	.06	.09	.07	.10	.08	.11	.08
	80	.04	.04	.05	.04	.05	.04	.06	.05
Drum chopped[5]	None	.16	.07	.17	.07	.20	.08	.29	.11
	10	.15	.07	.16	.07	.17	.08	.23	.10
	20	.12	.06	.12	.06	.14	.07	.18	.09
	40	.09	.06	.09	.06	.10	.06	.11	.07
	60	.06	.05	.06	.05	.07	.05	.07	.05
	80	.03	.03	.03	.03	.03	.03	.04	04

[1] Percentage of surface covered by residue in contact with the soil.

[2] *Excellent* soil condition—Highly stable soil aggregates in topsoil with fine tree roots and litter mixed in.

Good—Moderately stable soil aggregates in topsoil or highly stable aggregates in subsoil (topsoil removed during raking), only traces of litter mixed in.

Fair—Highly unstable soil aggregates in topsoil or moderately stable aggregates in subsoil, no litter mixed in.

Poor—No topsoil, highly erodible soil aggregates in subsoil, no litter mixed in.

[3] NC—No live vegetation.

WC—75 percent cover of grass and weeds having an average drop fall height of 20 in. For intermediate percentages of cover, interpolate between columns.

[4] Modify the listed C values as follows to account for effects of surface roughness and aging:

First year after treatment: multiply listed C values by 0.40 for rough surface (depressions >6 in); by 0.65 for moderately rough; and by 0.90 for smooth (depressions <2 in).

For 1 to 4 years after treatment: multiply listed factors by 0.7.

For 4+ to 8 years: use table 11.

More than 8 years: use table 7.

[5] For first 3 years: use C values as listed.

For 3+ to 8 years after treatment: use table 11.

More than 8 years after treatment: use table 7.

6/ For complete discussion of C factors related to woodland, see page 32, 33, and 34 of Agri. HB 537.

Table 13

"C" Factors for Annual Cover, and Various Quantities of Mulch

Cover or Mulch	"C" Factor
Bare areas	1.00
¼ ton straw mulch	.52
½ ton straw mulch	.35
3/4 ton straw mulch	.24
1 ton straw mulch	.18
1½ ton straw mulch	.10
2 ton straw mulch	.06
3 ton straw mulch	.03
4 ton straw mulch	.02
Annual cover	.15

Table 14
"P" Practice Factor Values

Slope %	Up and Down Hill	Contour Farming	Contour Stripcropping
.5 to 2	1.0	.60	.45
2.1 to 7	1.0	.50	.37
7.1 to 12	1.0	.60	.45

Slope-Length Limits for Contouring

Slope %	Maximum Slope Length
.5 to 2	400 feet
4 to 6	300 feet
8	200 feet
10	100 feet

Slope length may be increased 25 percent if residue cover after planting will regularly exceed 50 percent.

KRLSP TABLES

R= 250. K= 0.15 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	2.25	3.00	3.75	4.12	4.50	5.25	5.62	6.37	7.12	7.50
0.50	3.00	3.37	4.50	4.87	5.25	6.00	6.75	7.50	8.25	9.00
1.00	3.75	4.50	5.62	6.75	7.12	8.25	9.00	10.12	10.87	11.62
2.00	6.00	7.50	9.00	10.12	11.25	12.75	13.87	15.75	17.25	18.37
3.00	8.62	10.50	13.12	14.62	16.12	18.37	19.87	22.50	24.75	26.25
4.00	11.25	15.00	19.50	23.25	25.87	30.37	34.12	40.50	45.37	49.50
5.00	13.87	19.87	28.12	34.50	40.12	49.12	56.62	69.37	80.25	89.62
6.00	17.62	25.12	35.62	43.50	50.25	61.50	71.25	87.37	100.87	112.50
8.00	26.25	37.12	52.50	64.12	74.25	90.75	105.00	128.62	148.50	166.12
10.00	36.00	51.00	72.37	88.87	102.37	125.62	145.12	177.75	205.12	229.50
12.00	47.62	67.50	95.62	117.00	135.00	165.74	191.24	234.37	270.37	302.62
16.00	75.00	106.12	150.37	184.12	212.62	260.62	301.12	368.62	425.62	475.87

KRLSP TABLES

R= 250. K= 0.17 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	2.55	3.40	4.25	4.67	5.10	5.95	6.37	7.22	8.07	8.50
0.50	3.40	3.82	5.10	5.52	5.95	6.80	7.65	8.50	9.35	10.20
1.00	4.25	5.10	6.37	7.65	8.07	9.35	10.20	11.47	12.32	13.17
2.00	6.80	8.50	10.20	11.47	12.75	14.45	15.72	17.85	19.55	20.82
3.00	9.77	11.90	14.87	16.57	18.27	20.82	22.52	25.50	28.05	29.75
4.00	12.75	17.00	22.10	26.35	29.32	34.42	38.67	45.90	51.42	56.10
5.00	15.72	22.52	31.87	39.10	45.47	55.67	64.17	78.62	90.95	101.57
6.00	19.97	28.47	40.37	49.30	56.95	69.70	80.75	99.02	114.32	127.50
8.00	29.75	42.07	59.50	72.67	84.15	102.85	119.00	145.77	168.29	188.27
10.00	40.80	57.80	82.02	100.72	116.02	142.37	164.47	201.45	232.47	260.09
12.00	53.97	76.50	108.37	132.60	153.00	187.84	216.75	265.62	306.42	342.97
16.00	85.00	120.27	170.42	208.67	240.97	295.37	341.27	417.77	482.37	539.32

KRLSP TABLES

R= 250. K= 0.20 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.00	4.00	5.00	5.50	6.00	7.00	7.50	8.50	9.50	10.00
0.50	4.00	4.50	6.00	6.50	7.00	8.00	9.00	10.00	11.00	12.00
1.00	5.00	6.00	7.50	9.00	9.50	11.00	12.00	13.50	14.50	15.50
2.00	8.00	10.00	12.00	13.50	15.00	17.00	18.50	21.00	23.00	24.50
3.00	11.50	14.00	17.50	19.50	21.50	24.50	26.50	30.00	33.00	35.00
4.00	15.00	20.00	26.00	31.00	34.50	40.50	45.50	54.00	60.50	66.00
5.00	18.50	26.50	37.50	46.00	53.50	65.50	75.50	92.50	107.00	119.50
6.00	23.50	33.50	47.50	58.00	67.00	82.00	95.00	116.50	134.50	150.00
8.00	35.00	49.50	70.00	85.50	99.00	121.00	140.00	171.50	198.00	221.50
10.00	48.00	68.00	96.50	118.50	136.50	167.50	193.50	237.00	273.49	306.00
12.00	63.50	90.00	127.50	156.00	180.00	220.99	255.00	312.50	360.49	403.50
16.00	100.00	141.50	200.50	245.50	283.49	347.50	401.49	491.50	567.49	634.49

KRLSP TABLES

R= 250. K= 0.24 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.60	4.80	6.00	6.60	7.20	8.40	9.00	10.20	11.40	12.00
0.50	4.80	5.40	7.20	7.80	8.40	9.60	10.80	12.00	13.20	14.40
1.00	6.00	7.20	9.00	10.80	11.40	13.20	14.40	16.20	17.40	18.60
2.00	9.60	12.00	14.40	16.20	18.00	20.40	22.20	25.20	27.60	29.40
3.00	13.80	16.80	21.00	23.40	25.80	29.40	31.80	36.00	39.60	42.00
4.00	18.00	24.00	31.20	37.20	41.40	48.60	54.60	64.80	72.60	79.20
5.00	22.20	31.80	45.00	55.20	64.20	78.60	90.60	111.00	128.40	143.40
6.00	28.20	40.20	57.00	69.60	80.40	98.40	114.00	139.80	161.39	180.00
8.00	42.00	59.40	84.00	102.60	118.80	145.20	168.00	205.80	237.59	265.79
10.00	57.60	81.60	115.80	142.20	163.79	201.00	232.20	284.39	328.19	367.19
12.00	76.20	108.00	153.00	187.20	216.00	265.19	305.99	375.00	432.59	484.19
16.00	120.00	169.80	240.59	294.59	340.19	417.00	481.79	589.79	680.99	761.39

KRLSP TABLES

R= 250. K= 0.28 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	4.20	5.60	7.00	7.70	8.40	9.80	10.50	11.90	13.30	14.00
0.50	5.60	6.30	8.40	9.10	9.80	11.20	12.60	14.00	15.40	16.80
1.00	7.00	8.40	10.50	12.60	13.30	15.40	16.80	18.90	20.30	21.70
2.00	11.20	14.00	16.80	18.90	21.00	23.80	25.90	29.40	32.20	34.30
3.00	16.10	19.60	24.50	27.30	30.10	34.30	37.10	42.00	46.20	49.00
4.00	21.00	28.00	36.40	43.40	48.30	56.70	63.70	75.60	84.70	92.40
5.00	25.90	37.10	52.50	64.40	74.90	91.70	105.70	129.50	149.80	167.30
6.00	32.90	46.90	66.50	81.20	93.80	114.80	133.00	163.10	188.29	210.00
8.00	49.00	69.30	98.00	119.70	138.60	169.39	196.00	240.10	277.19	310.09
10.00	67.20	95.20	135.10	165.89	191.09	234.50	270.89	331.79	382.89	428.39
12.00	88.90	126.00	178.50	218.39	252.00	309.39	356.99	437.50	504.69	564.89
16.00	140.00	198.10	280.69	343.69	396.89	486.49	562.09	688.09	794.49	888.29

KRLSP TABLES

R= 250. K= 0.32 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	4.80	6.40	8.00	8.80	9.60	11.20	12.00	13.60	15.20	16.00
0.50	6.40	7.20	9.60	10.40	11.20	12.80	14.40	16.00	17.60	19.20
1.00	8.00	9.60	12.00	14.40	15.20	17.60	19.20	21.60	23.20	24.80
2.00	12.80	16.00	19.20	21.60	24.00	27.20	29.60	33.60	36.80	39.20
3.00	18.40	22.40	28.00	31.20	34.40	39.20	42.40	48.00	52.80	56.00
4.00	24.00	32.00	41.60	49.60	55.20	64.80	72.80	86.40	96.80	105.60
5.00	29.60	42.40	60.00	73.60	85.60	104.80	120.80	148.00	171.20	191.20
6.00	37.60	53.60	76.00	92.80	107.20	131.20	152.00	186.40	215.19	240.00
8.00	56.00	79.20	112.00	136.80	158.40	193.60	224.00	274.40	316.79	354.39
10.00	76.80	108.80	154.40	189.60	218.39	268.00	309.59	379.20	437.59	489.59
12.00	101.60	144.00	204.00	249.60	288.00	353.59	407.99	500.00	576.79	645.59
16.00	160.00	226.40	320.79	392.79	453.59	556.00	642.39	786.39	907.99	1015.19

KRLSP TABLES

R= 250. K= 0.37 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	5.55	7.40	9.25	10.17	11.10	12.95	13.87	15.72	17.57	18.50
0.50	7.40	8.32	11.10	12.02	12.95	14.80	16.65	18.50	20.35	22.20
1.00	9.25	11.10	13.87	16.65	17.57	20.35	22.20	24.97	26.82	28.67
2.00	14.80	18.50	22.20	24.97	27.75	31.45	34.22	38.85	42.55	45.32
3.00	21.27	25.90	32.37	36.07	39.77	45.32	49.02	55.50	61.05	64.75
4.00	27.75	37.00	48.10	57.35	63.82	74.92	84.17	99.90	111.92	122.10
5.00	34.22	49.02	69.37	85.10	98.97	121.17	139.67	171.12	197.94	221.07
6.00	43.47	61.97	87.87	107.30	123.95	151.70	175.75	215.52	248.82	277.50
8.00	64.75	91.57	129.50	158.17	183.14	223.84	258.99	317.27	366.29	409.77
10.00	88.80	125.80	178.52	219.22	252.52	309.87	357.97	438.44	505.97	566.09
12.00	117.47	166.50	235.87	288.59	332.99	408.84	471.74	578.12	666.92	746.47
16.00	185.00	261.77	370.92	454.17	524.47	642.87	742.77	909.27	1049.87	1173.82

KRLSP TABLES

R=.250. K= 0.43 UP ANC DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	6.45	8.60	10.75	11.82	12.90	15.05	16.12	18.27	20.42	21.50
0.50	8.60	9.67	12.90	13.97	15.05	17.20	19.35	21.50	23.65	25.80
1.00	10.75	12.90	16.12	19.35	20.42	23.65	25.80	29.02	31.17	33.32
2.00	17.20	21.50	25.80	29.02	32.25	36.55	39.77	45.15	49.45	52.67
3.00	24.72	30.10	37.62	41.92	46.22	52.67	56.97	64.50	70.95	75.25
4.00	32.25	43.00	55.90	66.65	74.17	87.07	97.82	116.10	130.07	141.90
5.00	39.77	56.97	80.62	98.90	115.02	140.82	162.32	198.87	230.04	256.92
6.00	50.52	72.02	102.12	124.70	144.05	176.29	204.25	250.47	289.17	322.50
8.00	75.25	106.42	150.50	183.82	212.84	260.14	300.99	368.72	425.69	476.22
10.00	103.20	146.20	207.47	254.77	293.47	360.12	416.02	509.54	588.02	657.89
12.00	136.52	193.50	274.12	335.39	386.99	475.14	548.24	671.87	775.07	867.52
16.00	215.00	304.22	431.07	527.82	609.52	747.12	863.22	1056.72	1220.12	1364.17

KRLSP TABLES

R= 250. K= 0.49 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	7.35	9.80	12.25	13.47	14.70	17.15	18.37	20.82	23.27	24.50
0.50	9.80	11.02	14.70	15.92	17.15	19.60	22.05	24.50	26.95	29.40
1.00	12.25	14.70	18.37	22.05	23.27	26.95	29.40	33.07	35.52	37.97
2.00	19.60	24.50	29.40	33.07	36.75	41.65	45.32	51.45	56.35	60.02
3.00	28.17	34.30	42.87	47.77	52.67	60.02	64.92	73.50	80.85	85.75
4.00	36.75	49.00	63.70	75.95	84.52	99.22	111.47	132.30	148.22	161.70
5.00	45.32	64.92	91.87	112.70	131.07	160.47	184.97	226.62	262.14	292.77
6.00	57.57	82.07	116.37	142.10	164.14	200.89	232.75	285.42	329.52	367.50
8.00	85.75	121.27	171.50	209.47	242.54	296.44	342.99	420.17	485.09	542.67
10.00	117.60	166.60	236.42	290.32	334.42	410.37	474.07	580.64	670.07	749.69
12.00	155.57	220.50	312.37	382.19	440.99	541.44	624.74	765.62	883.22	988.57
16.00	245.00	346.67	491.22	601.47	694.57	851.37	983.67	1204.17	1390.37	1554.52

KRLSP TABLES

R= 250. K= 0.55 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	8.25	11.00	13.75	15.12	16.50	19.25	20.62	23.37	26.12	27.50
0.50	11.00	12.37	16.50	17.87	19.25	22.00	24.75	27.50	30.25	33.00
1.00	13.75	16.50	20.62	24.75	26.12	30.25	33.00	37.12	39.87	42.62
2.00	22.00	27.50	33.00	37.12	41.25	46.75	50.87	57.75	63.25	67.37
3.00	31.62	38.50	48.12	53.62	59.12	67.37	72.87	82.50	90.75	96.25
4.00	41.25	55.00	71.50	85.25	94.87	111.37	125.12	148.50	166.37	181.50
5.00	50.87	72.87	103.12	126.50	147.12	180.12	207.62	254.37	294.25	328.62
6.00	64.62	92.12	130.62	159.50	184.25	225.50	261.25	320.37	369.87	412.50
8.00	96.25	136.12	192.50	235.12	272.24	332.74	384.99	471.62	544.49	609.12
10.00	132.00	187.00	265.37	325.87	375.37	460.62	532.12	651.74	752.12	841.49
12.00	174.62	247.50	350.62	428.99	494.99	607.74	701.24	859.37	991.37	1109.62
16.00	275.00	389.12	551.37	675.12	779.62	955.62	1104.12	1351.62	1560.62	1744.87

KRLSP TABLES

R= 275. K= 0.15 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	2.47	3.30	4.12	4.53	4.95	5.77	6.18	7.01	7.83	8.25
0.50	3.30	3.71	4.95	5.36	5.77	6.60	7.42	8.25	9.07	9.90
1.00	4.12	4.95	6.18	7.42	7.83	9.07	9.90	11.13	11.96	12.78
2.00	6.60	8.25	9.90	11.13	12.37	14.02	15.26	17.32	18.97	20.21
3.00	9.48	11.55	14.43	16.08	17.73	20.21	21.86	24.75	27.22	28.87
4.00	12.37	16.50	21.45	25.57	28.46	33.41	37.53	44.55	49.91	54.45
5.00	15.26	21.86	30.93	37.95	44.13	54.03	62.28	76.31	88.27	98.58
6.00	19.38	27.63	39.18	47.85	55.27	67.65	78.37	96.11	110.96	123.75
8.00	28.87	40.83	57.75	70.53	81.67	99.82	115.50	141.48	163.34	182.73
10.00	39.60	56.10	79.61	97.76	112.61	138.18	159.63	195.52	225.63	252.44
12.00	52.38	74.25	105.18	128.70	148.50	182.32	210.37	257.81	297.41	332.88
16.00	82.50	116.73	165.41	202.53	233.88	286.68	331.23	405.48	468.18	523.46

KRLSP TABLES

R= 275. K= 0.17 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	2.80	3.74	4.67	5.14	5.61	6.54	7.01	7.94	8.88	9.35
0.50	3.74	4.20	5.61	6.07	6.54	7.48	8.41	9.35	10.28	11.22
1.00	4.67	5.61	7.01	8.41	8.88	10.28	11.22	12.62	13.55	14.49
2.00	7.48	9.35	11.22	12.62	14.02	15.89	17.29	19.63	21.50	22.90
3.00	10.75	13.09	16.36	18.23	20.10	22.90	24.77	28.05	30.85	32.72
4.00	14.02	18.70	24.31	28.98	32.25	37.86	42.54	50.49	56.56	61.71
5.00	17.29	24.77	35.06	43.01	50.02	61.24	70.59	86.48	100.04	111.73
6.00	21.97	31.32	44.41	54.23	62.64	76.67	88.82	108.92	125.75	140.25
8.00	32.72	46.28	65.45	79.94	92.56	113.13	130.90	160.35	185.13	207.10
10.00	44.88	63.58	90.22	110.79	127.62	156.61	180.92	221.59	255.72	286.10
12.00	59.37	84.15	119.21	145.86	168.30	206.63	238.42	292.18	337.06	377.27
16.00	93.50	132.30	187.46	229.54	265.07	324.91	375.40	459.55	530.61	593.25

KRLSP TABLES

R= 275. K= 0.20 UP AND DOWN HILL

	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.30	4.40	5.50	6.05	6.60	7.70	8.25	9.35	10.45	11.00
0.50	4.40	4.95	6.60	7.15	7.70	8.80	9.90	11.00	12.10	13.20
1.00	5.50	6.60	8.25	9.90	10.45	12.10	13.20	14.85	15.95	17.05
2.00	8.80	11.00	13.20	14.85	16.50	18.70	20.35	23.10	25.30	26.95
3.00	12.65	15.40	19.25	21.45	23.65	26.95	29.15	33.00	36.30	38.50
4.00	16.50	22.00	28.60	34.10	37.95	44.55	50.05	59.40	66.55	72.60
5.00	20.35	29.15	41.25	50.60	58.85	72.05	83.05	101.75	117.70	131.45
6.00	25.85	36.85	52.25	63.80	73.70	90.20	104.50	128.15	147.95	165.00
8.00	38.50	54.45	77.00	94.05	108.90	133.10	154.00	188.65	217.79	243.64
10.00	52.80	74.80	106.15	130.35	150.14	184.25	212.85	260.70	300.84	336.59
12.00	69.65	99.00	140.25	171.60	198.00	243.09	280.50	343.75	396.54	443.84
16.00	110.00	155.65	220.54	270.04	311.84	382.25	441.64	540.64	624.24	697.94

KRLSP TABLES

R= 275. K= 0.24 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.96	5.28	6.60	7.26	7.92	9.24	9.90	11.22	12.54	13.20
0.50	5.28	5.94	7.92	8.58	9.24	10.56	11.88	13.20	14.52	15.84
1.00	6.60	7.92	9.90	11.88	12.54	14.52	15.84	17.82	19.14	20.46
2.00	10.56	13.20	15.84	17.82	19.80	22.44	24.42	27.72	30.36	32.34
3.00	15.18	18.48	23.10	25.74	28.38	32.34	34.98	39.60	43.56	46.20
4.00	19.80	26.40	34.32	40.92	45.54	53.46	60.06	71.28	79.86	87.12
5.00	24.42	34.98	49.50	60.72	70.62	86.46	99.66	122.10	141.24	157.74
6.00	31.02	44.22	62.70	76.56	88.44	108.24	125.40	153.78	177.53	198.00
8.00	46.20	65.34	92.40	112.86	130.68	159.72	184.79	226.38	261.35	292.37
10.00	63.36	89.76	127.38	156.42	180.17	221.10	255.42	312.83	361.01	403.91
12.00	83.82	118.80	168.29	205.92	237.60	291.71	336.59	412.50	475.85	532.61
16.00	132.00	186.77	264.65	324.05	374.21	458.69	529.97	648.77	749.09	837.53

KRLSP TABLES

R= 275. K= 0.28 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	4.62	6.16	7.70	8.47	9.24	10.78	11.55	13.09	14.63	15.40
0.50	6.16	6.93	9.24	10.01	10.78	12.32	13.86	15.40	16.94	18.48
1.00	7.70	9.24	11.55	13.86	14.63	16.94	18.48	20.79	22.33	23.87
2.00	12.32	15.40	18.48	20.79	23.10	26.18	28.49	32.34	35.42	37.73
3.00	17.71	21.56	26.95	30.03	33.11	37.73	40.81	46.20	50.82	53.90
4.00	23.10	30.80	40.04	47.74	53.13	62.37	70.07	83.16	93.17	101.64
5.00	28.49	40.81	57.75	70.84	82.39	100.87	116.27	142.45	164.77	184.02
6.00	36.19	51.59	73.15	89.32	103.18	126.28	146.30	179.41	207.12	231.00
8.00	53.90	76.23	107.80	131.67	152.45	186.33	215.59	264.10	304.91	341.10
10.00	73.92	104.72	148.61	182.49	210.20	257.95	297.98	364.97	421.18	471.23
12.00	97.79	138.60	196.35	240.23	277.20	340.33	392.69	481.25	555.16	621.38
16.00	154.00	217.91	308.76	378.06	436.58	535.14	618.30	756.90	873.94	977.12

KRLSP TABLES

R= 275. K= 0.32 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	5.28	7.04	8.80	9.68	10.56	12.32	13.20	14.96	16.72	17.60
0.50	7.04	7.92	10.56	11.44	12.32	14.08	15.84	17.60	19.36	21.12
1.00	8.80	10.56	13.20	15.84	16.72	19.36	21.12	23.76	25.52	27.28
2.00	14.08	17.60	21.12	23.76	26.40	29.92	32.56	36.96	40.48	43.12
3.00	20.24	24.64	30.80	34.32	37.84	43.12	46.64	52.80	58.08	61.60
4.00	26.40	35.20	45.76	54.56	60.72	71.28	80.08	95.04	106.48	116.16
5.00	32.56	46.64	66.00	80.96	94.16	115.28	132.88	162.80	188.32	210.32
6.00	41.36	58.96	83.60	102.08	117.92	144.32	167.20	205.04	236.72	264.00
8.00	61.60	87.12	123.20	150.48	174.24	212.95	246.39	301.83	348.47	389.84
10.00	84.48	119.68	169.84	208.56	240.23	294.79	340.55	417.11	481.35	538.55
12.00	111.76	158.40	224.39	274.55	316.79	388.95	448.79	550.00	634.47	710.15
16.00	176.00	249.04	352.87	432.08	498.95	611.59	706.63	865.03	998.79	1116.71

KRLSP TABLES

R= 275. K= 0.37 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	6.10	8.14	10.17	11.19	12.21	14.24	15.26	17.29	19.33	20.35
0.50	8.14	9.15	12.21	13.22	14.24	16.28	18.31	20.35	22.38	24.42
1.00	10.17	12.21	15.26	18.31	19.33	22.38	24.42	27.47	29.50	31.54
2.00	16.28	20.35	24.42	27.47	30.52	34.59	37.64	42.73	46.80	49.85
3.00	23.40	28.49	35.61	39.68	43.75	49.85	53.92	61.05	67.15	71.22
4.00	30.52	40.70	52.91	63.08	70.20	82.41	92.59	109.89	123.11	134.30
5.00	37.64	53.92	76.31	93.61	108.87	133.29	153.64	188.23	217.74	243.18
6.00	47.82	68.17	96.66	118.03	136.34	166.86	193.32	237.07	273.70	305.25
8.00	71.22	100.73	142.45	173.99	201.46	246.23	284.89	349.00	402.92	450.75
10.00	97.68	138.38	196.37	241.14	277.77	340.86	393.77	482.29	556.57	622.70
12.00	129.22	183.14	259.46	317.45	366.29	449.73	518.92	635.93	733.61	821.12
16.00	203.50	287.95	408.01	499.59	576.92	707.16	817.05	1000.20	1154.86	1291.20

KRLSP TABLES

R= 275. K= 0.43 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	7.09	9.46	11.82	13.00	14.19	16.55	17.73	20.10	22.46	23.65
0.50	9.46	10.64	14.19	15.37	16.55	18.92	21.28	23.65	26.01	28.38
1.00	11.82	14.19	17.73	21.28	22.46	26.01	28.38	31.92	34.29	36.65
2.00	18.92	23.65	28.38	31.92	35.47	40.20	43.75	49.66	54.39	57.94
3.00	27.19	33.11	41.38	46.11	50.84	57.94	62.67	70.95	78.04	82.77
4.00	35.47	47.30	61.49	73.31	81.59	95.78	107.60	127.71	143.08	156.08
5.00	43.75	62.67	88.68	108.79	126.52	154.90	178.55	218.76	253.05	282.61
6.00	55.57	79.22	112.33	137.17	158.45	193.92	224.67	275.52	318.09	354.75
8.00	82.77	117.06	165.54	202.20	234.13	286.16	331.09	405.59	468.26	523.84
10.00	113.52	160.82	228.22	280.25	322.82	396.13	457.62	560.50	646.82	723.68
12.00	150.17	212.85	301.53	368.93	425.69	522.66	603.07	739.06	852.58	954.27
16.00	236.50	334.64	474.18	580.60	670.47	821.83	949.54	1162.39	1342.13	1500.59

KRLSP TABLES

R= 275. K= 0.49 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	8.08	10.78	13.47	14.82	16.17	18.86	20.21	22.90	25.60	26.95
0.50	10.78	12.12	16.17	17.51	18.86	21.56	24.25	26.95	29.64	32.34
1.00	13.47	16.17	20.21	24.25	25.60	29.64	32.34	36.38	39.07	41.77
2.00	21.56	26.95	32.34	36.38	40.42	45.81	49.85	56.59	61.98	66.02
3.00	30.99	37.73	47.16	52.55	57.94	66.02	71.41	80.85	88.93	94.32
4.00	40.42	53.90	70.07	83.54	92.97	109.14	122.62	145.52	163.04	177.86
5.00	49.85	71.41	101.06	123.97	144.18	176.52	203.47	249.28	288.36	322.05
6.00	63.33	90.25	128.01	156.30	180.56	220.98	256.02	313.96	362.47	404.25
8.00	94.32	133.40	188.64	230.42	266.80	326.09	377.29	462.19	533.60	596.94
10.00	129.36	183.26	260.06	319.35	367.86	451.41	521.48	638.71	737.08	824.66
12.00	171.13	242.54	343.61	420.41	485.09	595.59	687.22	842.18	971.54	1087.43
16.00	269.50	381.34	540.34	661.62	764.03	936.51	1082.04	1324.59	1529.41	1709.97

KRLSP TABLES

R= 275. K= 0.55 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	9.07	12.10	15.12	16.63	18.15	21.17	22.68	25.71	28.73	30.25
0.50	12.10	13.61	18.15	19.66	21.17	24.20	27.22	30.25	33.27	36.30
1.00	15.12	18.15	22.68	27.22	28.73	33.27	36.30	40.83	43.86	46.88
2.00	24.20	30.25	36.30	40.83	45.37	51.42	55.96	63.52	69.57	74.11
3.00	34.78	42.35	52.93	58.98	65.03	74.11	80.16	90.75	99.82	105.87
4.00	45.37	60.50	78.65	93.77	104.36	122.51	137.63	163.35	183.01	199.64
5.00	55.96	80.16	113.43	139.15	161.83	198.13	228.38	279.81	323.67	361.48
6.00	71.08	101.33	143.68	175.44	202.67	248.04	287.37	352.41	406.86	453.75
8.00	105.87	149.73	211.75	258.63	299.47	366.02	423.49	518.78	598.94	670.03
10.00	145.20	205.70	291.91	358.46	412.91	506.68	585.33	716.92	827.33	925.64
12.00	192.08	272.25	385.68	471.89	544.49	668.52	771.37	945.31	1090.51	1220.58
16.00	302.50	428.03	606.51	742.63	857.58	1051.18	1214.53	1486.78	1716.68	1919.36

KRLSP TABLES

R= 300. K= 0.15 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	2.70	3.60	4.50	4.95	5.40	6.30	6.75	7.65	8.55	9.00
0.50	3.60	4.05	5.40	5.85	6.30	7.20	8.10	9.00	9.90	10.80
1.00	4.50	5.40	6.75	8.10	8.55	9.90	10.80	12.15	13.05	13.95
2.00	7.20	9.00	10.80	12.15	13.50	15.30	16.65	18.90	20.70	22.05
3.00	10.35	12.60	15.75	17.55	19.35	22.05	23.85	27.00	29.70	31.50
4.00	13.50	18.00	23.40	27.90	31.05	36.45	40.95	48.60	54.45	59.40
5.00	16.65	23.85	33.75	41.40	48.15	58.95	67.95	83.25	96.30	107.55
6.00	21.15	30.15	42.75	52.20	60.30	73.80	85.50	104.85	121.05	135.00
8.00	31.50	44.55	63.00	76.95	89.10	108.90	126.00	154.35	178.19	199.34
10.00	43.20	61.20	86.85	106.65	122.85	150.75	174.14	213.29	246.14	275.39
12.00	57.15	81.00	114.75	140.39	162.00	198.89	229.49	281.25	324.44	363.14
16.00	90.00	127.35	180.44	220.94	255.14	312.74	361.34	442.34	510.74	571.04

KRLSP TABLES

R= 300. K= 0.17 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.06	4.08	5.10	5.61	6.12	7.14	7.65	8.67	9.69	10.20
0.50	4.08	4.59	6.12	6.63	7.14	8.16	9.18	10.20	11.22	12.24
1.00	5.10	6.12	7.65	9.18	9.69	11.22	12.24	13.77	14.79	15.81
2.00	8.16	10.20	12.24	13.77	15.30	17.34	18.87	21.42	23.46	24.99
3.00	11.73	14.28	17.85	19.89	21.93	24.99	27.03	30.60	33.66	35.70
4.00	15.30	20.40	26.52	31.62	35.19	41.31	46.41	55.08	61.71	67.32
5.00	18.87	27.03	38.25	46.92	54.57	66.81	77.01	94.35	109.14	121.89
6.00	23.97	34.17	48.45	59.16	68.34	83.64	96.90	118.83	137.19	153.00
8.00	35.70	50.49	71.40	87.21	100.98	123.42	142.80	174.93	201.95	225.92
10.00	48.96	69.36	98.43	120.87	139.23	170.85	197.37	241.73	278.96	312.11
12.00	64.77	91.80	130.05	159.12	183.60	225.41	260.09	318.75	367.70	411.56
16.00	102.00	144.33	204.50	250.41	289.16	354.44	409.52	501.32	578.84	647.18

KRLSP TABLES

R= 300. K= 0.20 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.60	4.80	6.00	6.60	7.20	8.40	9.00	10.20	11.40	12.00
0.50	4.80	5.40	7.20	7.80	8.40	9.60	10.80	12.00	13.20	14.40
1.00	6.00	7.20	9.00	10.80	11.40	13.20	14.40	16.20	17.40	18.60
2.00	9.60	12.00	14.40	16.20	18.00	20.40	22.20	25.20	27.60	29.40
3.00	13.80	16.80	21.00	23.40	25.80	29.40	31.80	36.00	39.60	42.00
4.00	18.00	24.00	31.20	37.20	41.40	48.60	54.60	64.80	72.60	79.20
5.00	22.20	31.80	45.00	55.20	64.20	78.60	90.60	111.00	128.40	143.40
6.00	28.20	40.20	57.00	69.60	80.40	98.40	114.00	139.80	161.39	180.00
8.00	42.00	59.40	84.00	102.60	118.80	145.20	168.00	205.80	237.60	265.79
10.00	57.60	81.60	115.80	142.20	163.79	201.00	232.20	284.39	328.19	367.20
12.00	76.20	108.00	153.00	187.20	216.00	265.19	305.99	375.00	432.59	484.19
16.00	120.00	169.80	240.59	294.59	340.19	417.00	481.79	589.79	680.99	761.39

KRLSP TABLES

R= 300. K= 0.24 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	4.32	5.76	7.20	7.92	8.64	10.08	10.80	12.24	13.68	14.40
0.50	5.76	6.48	8.64	9.36	10.08	11.52	12.96	14.40	15.84	17.28
1.00	7.20	8.64	10.80	12.96	13.68	15.84	17.28	19.44	20.88	22.32
2.00	11.52	14.40	17.28	19.44	21.60	24.48	26.64	30.24	33.12	35.28
3.00	16.56	20.16	25.20	28.08	30.96	35.28	38.16	43.20	47.52	50.40
4.00	21.60	28.80	37.44	44.64	49.68	58.32	65.52	77.76	87.12	95.04
5.00	26.64	38.16	54.00	66.24	77.04	94.32	108.72	133.20	154.08	172.08
6.00	33.84	48.24	68.40	83.52	96.48	118.08	136.80	167.76	193.67	216.00
8.00	50.40	71.28	100.80	123.12	142.55	174.23	201.60	246.95	285.11	318.95
10.00	69.12	97.92	138.96	170.64	196.55	241.20	278.64	341.27	393.83	440.63
12.00	91.44	129.60	183.60	224.64	259.20	318.23	367.19	450.00	519.11	581.03
16.00	144.00	203.76	288.71	353.51	408.23	500.39	578.15	707.75	817.19	913.67

KRLSP TABLES

R= 300. K= 0.28 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	5.04	6.72	8.40	9.24	10.08	11.76	12.60	14.28	15.96	16.80
0.50	6.72	7.56	10.08	10.92	11.76	13.44	15.12	16.80	18.48	20.16
1.00	8.40	10.08	12.60	15.12	15.96	18.48	20.16	22.68	24.36	26.04
2.00	13.44	16.80	20.16	22.68	25.20	28.56	31.08	35.28	38.64	41.16
3.00	19.32	23.52	29.40	32.76	36.12	41.16	44.52	50.40	55.44	58.80
4.00	25.20	33.60	43.68	52.08	57.96	68.04	76.44	90.72	101.64	110.88
5.00	31.08	44.52	63.00	77.28	89.88	110.04	126.84	155.40	179.76	200.76
6.00	39.48	56.28	79.80	97.44	112.56	137.76	159.60	195.72	225.95	252.00
8.00	58.80	83.16	117.60	143.64	166.32	203.27	235.19	288.11	332.63	372.11
10.00	80.64	114.24	162.11	199.08	229.31	281.39	325.07	398.15	459.47	514.07
12.00	106.68	151.20	214.19	262.07	302.39	371.27	428.39	524.99	605.63	677.87
16.00	168.00	237.72	336.83	412.43	476.27	583.79	674.51	825.71	953.39	1065.95

KRLSP TABLES

R= 300. K= 0.32 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	5.76	7.68	9.60	10.56	11.52	13.44	14.40	16.32	18.24	19.20
0.50	7.68	8.64	11.52	12.48	13.44	15.36	17.28	19.20	21.12	23.04
1.00	9.60	11.52	14.40	17.28	18.24	21.12	23.04	25.92	27.84	29.76
2.00	15.36	19.20	23.04	25.92	28.80	32.64	35.52	40.32	44.16	47.04
3.00	22.08	26.88	33.60	37.44	41.28	47.04	50.88	57.60	63.36	67.20
4.00	28.80	38.40	49.92	59.52	66.24	77.76	87.36	103.68	116.16	126.72
5.00	35.52	50.88	72.00	88.32	102.72	125.76	144.96	177.60	205.44	229.44
6.00	45.12	64.32	91.20	111.36	128.64	157.44	182.40	223.68	258.23	288.00
8.00	67.20	95.04	134.40	164.16	190.08	232.31	268.79	329.27	380.15	425.27
10.00	92.16	130.56	185.27	227.52	262.07	321.59	371.52	455.03	525.11	587.52
12.00	121.92	172.80	244.79	299.52	345.59	424.31	489.59	600.00	692.15	774.71
16.00	192.00	271.67	384.95	471.35	544.31	667.19	770.87	943.67	1089.59	1218.23

KRLSP TABLES

R= 300. K= 0.37 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	6.66	8.88	11.10	12.21	13.32	15.54	16.65	18.87	21.09	22.20
0.50	8.88	9.99	13.32	14.43	15.54	17.76	19.98	22.20	24.42	26.64
1.00	11.10	13.32	16.65	19.98	21.09	24.42	26.64	29.97	32.19	34.41
2.00	17.76	22.20	26.64	29.97	33.30	37.74	41.07	46.62	51.06	54.39
3.00	25.53	31.08	38.85	43.29	47.73	54.39	58.83	66.60	73.26	77.70
4.00	33.30	44.40	57.72	68.82	76.59	89.91	101.01	119.88	134.30	146.52
5.00	41.07	58.83	83.25	102.12	118.77	145.41	167.61	205.35	237.53	265.28
6.00	52.17	74.37	105.45	128.76	148.73	182.03	210.89	258.62	298.58	333.00
8.00	77.70	109.89	155.39	189.80	219.77	268.61	310.79	380.72	439.55	491.72
10.00	106.56	150.95	214.22	263.06	303.02	371.84	429.56	526.13	607.16	679.31
12.00	140.97	199.79	283.04	346.31	399.59	490.61	566.09	693.74	800.30	895.76
16.00	222.00	314.12	445.10	545.00	629.36	771.44	891.32	1091.12	1259.84	1408.58

KRLSP TABLES

R= 300. K= 0.43 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	7.74	10.32	12.90	14.19	15.48	18.06	19.35	21.93	24.51	25.80
0.50	10.32	11.61	15.48	16.77	18.06	20.64	23.22	25.80	28.38	30.96
1.00	12.90	15.48	19.35	23.22	24.51	28.38	30.96	34.83	37.41	39.99
2.00	20.64	25.80	30.96	34.83	38.70	43.86	47.73	54.18	59.34	63.21
3.00	29.67	36.12	45.15	50.31	55.47	63.21	68.37	77.40	85.14	90.30
4.00	38.70	51.60	67.08	79.98	89.01	104.49	117.39	139.32	156.08	170.27
5.00	47.73	68.37	96.75	118.68	138.02	168.99	194.79	238.64	276.05	308.30
6.00	60.63	86.43	122.55	149.63	172.86	211.55	245.09	300.56	347.00	387.00
8.00	90.30	127.71	180.60	220.58	255.41	312.17	361.19	442.46	510.83	571.46
10.00	123.84	175.44	248.96	305.72	352.16	432.14	499.22	611.45	705.62	789.47
12.00	163.83	232.20	328.94	402.47	464.39	570.17	657.89	806.24	930.08	1041.02
16.00	258.00	365.06	517.28	633.38	731.42	896.54	1035.86	1268.06	1464.14	1637.00

KRLSP TABLES

R= 300. K= 0.49 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	8.82	11.76	14.70	16.17	17.64	20.58	22.05	24.99	27.93	29.40
0.50	11.76	13.23	17.64	19.11	20.58	23.52	26.46	29.40	32.34	35.28
1.00	14.70	17.64	22.05	26.46	27.93	32.34	35.28	39.69	42.63	45.57
2.00	23.52	29.40	35.28	39.69	44.10	49.98	54.39	61.74	67.62	72.03
3.00	33.81	41.16	51.45	57.33	63.21	72.03	77.91	88.20	97.02	102.90
4.00	44.10	58.80	76.44	91.14	101.43	119.07	133.77	158.76	177.86	194.04
5.00	54.39	77.91	110.25	135.24	157.29	192.57	221.97	271.94	314.57	351.32
6.00	69.09	98.49	139.65	170.51	196.98	241.07	279.29	342.50	395.42	441.00
8.00	102.70	145.52	205.79	251.36	291.05	355.73	411.59	504.20	582.11	651.20
10.00	141.11	199.92	283.70	348.38	401.30	492.44	568.88	696.77	804.08	899.63
12.00	186.69	264.59	374.84	458.63	529.19	649.73	749.69	918.74	1059.86	1186.28
16.00	294.00	416.09	589.46	721.76	833.48	1021.64	1180.40	1445.00	1668.44	1865.42

KRLSP TABLES

R= 300. K= 0.55 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	9.90	13.20	16.50	18.15	19.80	23.10	24.75	28.05	31.35	33.00
0.50	13.20	14.85	19.80	21.45	23.10	26.40	29.70	33.00	36.30	39.60
1.00	16.50	19.80	24.75	29.70	31.35	36.30	39.60	44.55	47.85	51.15
2.00	26.40	33.00	39.60	44.55	49.50	56.10	61.05	69.30	75.90	80.85
3.00	37.95	46.20	57.75	64.35	70.95	80.85	87.45	99.00	108.90	115.50
4.00	49.50	66.00	85.80	102.30	113.85	133.65	150.15	178.20	199.64	217.80
5.00	61.05	87.45	123.75	151.80	176.55	216.14	249.15	305.25	353.09	394.34
6.00	77.55	110.55	156.75	191.39	221.10	270.59	313.49	384.44	443.84	495.00
8.00	115.50	163.35	231.00	282.14	326.69	399.29	461.99	565.94	653.39	730.94
10.00	158.39	224.39	318.44	391.04	450.44	552.74	638.54	782.09	902.54	1009.79
12.00	209.55	297.00	420.74	514.79	593.99	729.29	841.49	1031.24	1189.64	1331.54
16.00	330.00	466.94	661.64	810.14	935.54	1146.74	1324.94	1621.94	1872.74	2093.84

KRLSP TABLES

R= 325. K= 0.15 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	2.92	3.90	4.87	5.36	5.85	6.82	7.31	8.28	9.26	9.75
0.50	3.90	4.38	5.85	6.33	6.82	7.80	8.77	9.75	10.72	11.70
1.00	4.87	5.85	7.31	8.77	9.26	10.72	11.70	13.16	14.13	15.11
2.00	7.80	9.75	11.70	13.16	14.62	16.57	18.03	20.47	22.42	23.88
3.00	11.21	13.65	17.06	19.01	20.96	23.88	25.83	29.25	32.17	34.12
4.00	14.62	19.50	25.35	30.22	33.63	39.48	44.36	52.65	58.98	64.35
5.00	18.03	25.83	36.56	44.85	52.16	63.86	73.61	90.18	104.32	116.51
6.00	22.91	32.66	46.31	56.55	65.32	79.95	92.62	113.58	131.13	146.25
8.00	34.12	48.26	68.25	83.36	96.52	117.97	136.50	167.21	193.04	215.96
10.00	46.80	66.30	94.08	115.53	133.08	163.31	188.66	231.07	266.66	298.34
12.00	61.91	87.75	124.31	152.10	175.50	215.47	248.62	304.68	351.48	393.41
16.00	97.50	137.96	195.48	239.36	276.41	338.81	391.46	479.21	553.31	618.63

KRLSP TABLES

R= 325. K= 0.17 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.31	4.42	5.52	6.07	6.63	7.73	8.28	9.39	10.49	11.05
0.50	4.42	4.97	6.63	7.18	7.73	8.84	9.94	11.05	12.15	13.26
1.00	5.52	6.63	8.28	9.94	10.49	12.15	13.26	14.91	16.02	17.12
2.00	8.84	11.05	13.26	14.91	16.57	18.78	20.44	23.20	25.41	27.07
3.00	12.70	15.47	19.33	21.54	23.75	27.07	29.28	33.15	36.46	38.67
4.00	16.57	22.10	28.73	34.25	38.12	44.75	50.27	59.67	66.85	72.93
5.00	20.44	29.28	41.43	50.83	59.11	72.37	83.42	102.21	118.23	132.04
6.00	25.96	37.01	52.48	64.09	74.03	90.61	104.97	128.73	148.62	165.75
8.00	38.67	54.69	77.35	94.47	109.39	133.70	154.70	189.50	218.78	244.75
10.00	53.04	75.14	106.63	130.94	150.83	185.08	213.81	261.88	302.21	338.13
12.00	70.16	99.45	140.68	172.38	198.90	244.20	281.77	345.31	398.35	445.86
16.00	110.50	156.35	221.55	271.27	313.26	383.98	443.65	543.10	627.08	701.12

KRLSP TABLES

R= 325. K= 0.20 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.90	5.20	6.50	7.15	7.80	9.10	9.75	11.05	12.35	13.00
0.50	5.20	5.85	7.80	8.45	9.10	10.40	11.70	13.00	14.30	15.60
1.00	6.50	7.80	9.75	11.70	12.35	14.30	15.60	17.55	18.85	20.15
2.00	10.40	13.00	15.60	17.55	19.50	22.10	24.05	27.30	29.90	31.85
3.00	14.95	18.20	22.75	25.35	27.95	31.85	34.45	39.00	42.90	45.50
4.00	19.50	26.00	33.80	40.30	44.85	52.65	59.15	70.20	78.65	85.80
5.00	24.05	34.45	48.75	59.80	69.55	85.15	98.15	120.25	139.10	155.35
6.00	30.55	43.55	61.75	75.40	87.10	106.60	123.50	151.45	174.85	195.00
8.00	45.50	64.35	91.00	111.15	128.70	157.29	182.00	222.95	257.39	287.94
10.00	62.40	88.40	125.45	154.05	177.44	217.75	251.55	308.09	355.54	397.79
12.00	82.55	117.00	165.75	202.80	234.00	287.29	331.49	406.25	468.64	524.54
16.00	130.00	183.95	260.64	319.14	368.54	451.75	521.94	638.94	737.74	824.84

KRLSP TABLES

R= 325. K= 0.24 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	4.68	6.24	7.80	8.58	9.36	10.92	11.70	13.26	14.82	15.60
0.50	6.24	7.02	9.36	10.14	10.92	12.48	14.04	15.60	17.16	18.72
1.00	7.80	9.36	11.70	14.04	14.82	17.16	18.72	21.06	22.62	24.18
2.00	12.48	15.60	18.72	21.06	23.40	26.52	28.86	32.76	35.88	38.22
3.00	17.94	21.84	27.30	30.42	33.54	38.22	41.34	46.80	51.48	54.60
4.00	23.40	31.20	40.56	48.36	53.82	63.18	70.98	84.24	94.38	102.96
5.00	28.86	41.34	58.50	71.76	83.46	102.18	117.78	144.30	166.92	186.42
6.00	36.66	52.26	74.10	90.48	104.52	127.92	148.20	181.74	209.81	234.00
8.00	54.60	77.22	109.20	133.38	154.44	188.75	218.39	267.53	308.87	345.53
10.00	74.88	106.08	150.54	184.86	212.93	261.29	301.85	369.71	426.65	477.35
12.00	99.06	140.40	198.89	243.36	280.79	344.75	397.79	487.50	562.37	629.45
16.00	156.00	220.74	312.77	382.97	442.25	542.09	626.33	766.73	885.29	989.81

KRLSP TABLES

R= 325. K= 0.28 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	5.46	7.28	9.10	10.01	10.92	12.74	13.65	15.47	17.29	18.20
0.50	7.28	8.19	10.92	11.83	12.74	14.56	16.38	18.20	20.02	21.84
1.00	9.10	10.92	13.65	16.38	17.29	20.02	21.84	24.57	26.39	28.21
2.00	14.56	18.20	21.84	24.57	27.30	30.94	33.67	38.22	41.86	44.59
3.00	20.93	25.48	31.85	35.49	39.13	44.59	48.23	54.60	60.06	63.70
4.00	27.30	36.40	47.32	56.42	62.79	73.71	82.81	98.28	110.11	120.12
5.00	33.67	48.23	68.25	83.72	97.37	119.21	137.41	168.35	194.73	217.48
6.00	42.77	60.97	86.45	105.56	121.94	149.24	172.89	212.02	244.78	273.00
8.00	63.70	90.09	127.40	155.60	180.17	220.21	254.79	312.12	360.35	403.12
10.00	87.36	123.76	175.63	215.67	248.42	304.84	352.16	431.33	497.76	556.91
12.00	115.57	163.80	232.04	283.91	327.59	402.21	464.09	568.74	656.10	734.36
16.00	182.00	257.52	364.90	446.80	515.96	632.44	730.72	894.52	1032.84	1154.78

KRLSP TABLES

R= 325. K= 0.32 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	6.24	8.32	10.40	11.44	12.48	14.56	15.60	17.68	19.76	20.80
0.50	8.32	9.36	12.48	13.52	14.56	16.64	18.72	20.80	22.88	24.96
1.00	10.40	12.48	15.60	18.72	19.76	22.88	24.96	28.08	30.16	32.24
2.00	16.64	20.80	24.96	28.08	31.20	35.36	38.48	43.68	47.84	50.96
3.00	23.92	29.12	36.40	40.56	44.72	50.96	55.12	62.40	68.64	72.80
4.00	31.20	41.60	54.08	64.48	71.76	84.24	94.64	112.32	125.84	137.28
5.00	38.48	55.12	78.00	95.68	111.28	136.24	157.04	192.40	222.56	248.56
6.00	48.88	69.68	98.80	120.64	139.36	170.56	197.60	242.32	279.75	312.00
8.00	72.80	102.96	145.60	177.83	205.92	251.67	291.20	356.71	411.83	460.71
10.00	99.84	141.44	200.72	246.48	283.91	348.40	402.47	492.95	568.87	636.47
12.00	132.08	187.20	265.20	324.47	374.40	459.67	530.39	650.00	749.83	839.27
16.00	208.00	294.32	417.03	510.64	589.67	722.79	835.11	1022.31	1180.39	1319.75

KRLSP TABLES

R= 325. K= 0.37 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	7.21	9.62	12.02	13.22	14.43	16.83	18.03	20.44	22.84	24.05
0.50	9.62	10.82	14.43	15.63	16.83	19.24	21.64	24.05	26.45	28.86
1.00	12.02	14.43	18.03	21.64	22.84	26.45	28.86	32.46	34.87	37.27
2.00	19.24	24.05	28.86	32.46	36.07	40.88	44.49	50.50	55.31	58.92
3.00	27.65	33.67	42.08	46.89	51.70	58.92	63.73	72.15	79.36	84.17
4.00	36.07	48.10	62.53	74.55	82.97	97.40	109.42	129.86	145.50	158.73
5.00	44.49	63.73	90.18	110.63	128.66	157.52	181.57	222.46	257.33	287.39
6.00	56.51	80.56	114.23	139.48	161.13	197.20	228.47	280.18	323.47	360.74
8.00	84.17	119.04	168.35	205.62	238.09	291.00	336.69	412.45	476.18	532.70
10.00	115.44	163.54	232.08	284.99	328.28	402.83	465.36	569.96	657.76	735.92
12.00	152.71	216.44	306.63	375.17	432.89	531.50	613.27	751.56	867.00	970.41
16.00	240.50	340.30	482.20	590.42	681.81	835.73	965.60	1182.05	1364.83	1525.97

KRLSP TABLES

R= 325. K= 0.43 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	8.38	11.18	13.97	15.37	16.77	19.56	20.96	23.75	26.55	27.95
0.50	11.18	12.57	16.77	18.16	19.56	22.36	25.15	27.95	30.74	33.54
1.00	13.97	16.77	20.96	25.15	26.55	30.74	33.54	37.73	40.52	43.32
2.00	22.36	27.95	33.54	37.73	41.92	47.51	51.70	58.69	64.28	68.47
3.00	32.14	39.13	48.91	54.50	60.09	68.47	74.06	83.85	92.23	97.82
4.00	41.92	55.90	72.67	86.64	96.42	113.19	127.17	150.92	169.09	184.47
5.00	51.70	74.06	104.81	128.57	149.53	183.07	211.02	258.53	299.06	334.00
6.00	65.68	93.63	132.76	162.10	187.26	229.18	265.52	325.61	375.92	419.24
8.00	97.82	138.35	195.64	238.97	276.70	338.19	391.29	479.34	553.40	619.09
10.00	134.16	190.05	269.71	331.20	381.51	468.16	540.83	662.41	764.43	855.26
12.00	177.48	251.54	356.36	436.01	503.09	617.69	712.72	873.43	1007.59	1127.78
16.00	279.50	395.49	560.39	686.17	792.38	971.26	1122.19	1373.74	1586.16	1773.42

KRLSP TABLES

R= 325. K= 0.49 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	9.55	12.74	15.92	17.51	19.11	22.29	23.88	27.07	30.25	31.85
0.50	12.74	14.33	19.11	20.70	22.29	25.48	28.66	31.85	35.03	38.22
1.00	15.92	19.11	23.88	28.66	30.25	35.03	38.22	42.99	46.18	49.36
2.00	25.48	31.85	38.22	42.99	47.77	54.14	58.92	66.88	73.25	78.03
3.00	36.62	44.59	55.73	62.10	68.47	78.03	84.40	95.55	105.10	111.47
4.00	47.77	63.70	82.81	98.73	109.88	128.99	144.91	171.98	192.69	210.20
5.00	58.92	84.40	119.43	146.51	170.39	208.61	240.46	294.61	340.79	380.60
6.00	74.84	106.69	151.28	184.72	213.39	261.16	302.57	371.05	428.38	477.75
8.00	111.47	157.65	222.94	272.31	315.31	385.38	445.89	546.22	630.62	705.47
10.00	152.88	216.57	307.35	377.42	434.75	533.48	616.29	754.84	871.09	974.60
12.00	202.24	286.64	406.08	496.85	573.29	703.88	812.17	995.31	1148.19	1285.14
16.00	318.50	450.67	638.59	781.91	902.94	1106.78	1278.77	1565.42	1807.48	2020.88

KRLSP TABLES

R= 325. K= 0.55 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	10.72	14.30	17.87	19.66	21.45	25.02	26.81	30.38	33.96	35.75
0.50	14.30	16.08	21.45	23.23	25.02	28.60	32.17	35.75	39.32	42.90
1.00	17.87	21.45	26.81	32.17	33.96	39.32	42.90	48.26	51.83	55.41
2.00	28.60	35.75	42.90	48.26	53.62	60.77	66.13	75.07	82.22	87.58
3.00	41.11	50.05	62.56	69.71	76.86	87.58	94.73	107.25	117.97	125.12
4.00	53.62	71.50	92.95	110.82	123.33	144.78	162.66	193.05	216.28	235.95
5.00	66.13	94.73	134.06	164.45	191.26	234.16	269.91	330.68	382.52	427.21
6.00	84.01	119.76	169.81	207.34	239.52	293.14	339.62	416.48	480.83	536.25
8.00	125.12	176.96	250.25	305.66	353.92	432.57	500.49	613.11	707.84	791.86
10.00	171.60	243.10	344.98	423.63	487.98	598.81	691.76	847.27	977.76	1093.94
12.00	227.01	321.75	455.81	557.69	643.49	790.07	911.62	1117.18	1288.78	1442.51
16.00	357.50	505.86	716.78	877.66	1013.51	1242.31	1435.36	1757.11	2028.81	2268.33

KRLSP TABLES

R= 350. K= 0.15 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.15	4.20	5.25	5.77	6.30	7.35	7.87	8.92	9.97	10.50
0.50	4.20	4.72	6.30	6.82	7.35	8.40	9.45	10.50	11.55	12.60
1.00	5.25	6.30	7.87	9.45	9.97	11.55	12.60	14.17	15.22	16.27
2.00	8.40	10.50	12.60	14.17	15.75	17.85	19.42	22.05	24.15	25.72
3.00	12.07	14.70	18.37	20.47	22.57	25.72	27.82	31.50	34.65	36.75
4.00	15.75	21.00	27.30	32.55	36.22	42.52	47.77	56.70	63.52	69.30
5.00	19.42	27.82	39.37	48.30	56.17	68.77	79.27	97.12	112.35	125.47
6.00	24.67	35.17	49.87	60.90	70.35	86.10	99.75	122.32	141.22	157.50
8.00	36.75	51.97	73.50	89.77	103.95	127.05	147.00	180.07	207.89	232.57
10.00	50.40	71.40	101.32	124.42	143.32	175.87	203.17	248.84	287.17	321.29
12.00	66.67	94.50	133.87	163.79	189.00	232.04	267.74	328.12	378.52	423.67
16.00	105.00	148.57	210.52	257.77	297.67	364.87	421.57	516.07	595.87	666.22

KRLSP TABLES

R= 350. K= 0.17 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	3.57	4.76	5.95	6.54	7.14	8.33	8.92	10.11	11.30	11.90
0.50	4.76	5.35	7.14	7.73	8.33	9.52	10.71	11.90	13.09	14.28
1.00	5.95	7.14	8.92	10.71	11.30	13.09	14.28	16.06	17.25	18.44
2.00	9.52	11.90	14.28	16.06	17.85	20.23	22.01	24.99	27.37	29.15
3.00	13.68	16.66	20.82	23.20	25.58	29.15	31.53	35.70	39.27	41.65
4.00	17.85	23.80	30.94	36.89	41.05	48.19	54.14	64.26	71.99	78.54
5.00	22.01	31.53	44.62	54.74	63.66	77.94	89.84	110.07	127.33	142.20
6.00	27.96	39.86	56.52	69.02	79.73	97.58	113.05	138.63	160.05	178.50
8.00	41.65	58.90	83.30	101.74	117.81	143.98	166.60	204.08	235.61	263.58
10.00	57.12	80.92	114.83	141.01	162.43	199.32	230.26	282.02	325.46	364.13
12.00	75.56	107.10	151.72	185.64	214.20	262.98	303.44	371.87	428.99	480.16
16.00	119.00	168.38	238.59	292.14	337.36	413.52	477.78	584.88	675.32	755.05

R= 350. K= 0.20 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	4.20	5.60	7.00	7.70	8.40	9.80	10.50	11.90	13.30	14.00
0.50	5.60	6.30	8.40	9.10	9.80	11.20	12.60	14.00	15.40	16.80
1.00	7.00	8.40	10.50	12.60	13.30	15.40	16.80	18.90	20.30	21.70
2.00	11.20	14.00	16.80	18.90	21.00	23.80	25.90	29.40	32.20	34.30
3.00	16.10	19.60	24.50	27.30	30.10	34.30	37.10	42.00	46.20	49.00
4.00	21.00	28.00	36.40	43.40	48.30	56.70	63.70	75.60	84.70	92.40
5.00	25.90	37.10	52.50	64.40	74.90	91.70	105.70	129.50	149.80	167.30
6.00	32.90	46.90	66.50	81.20	93.80	114.80	133.00	163.10	188.29	210.00
8.00	49.00	69.30	98.00	119.70	138.60	169.39	196.00	240.10	277.19	310.09
10.00	67.20	95.20	135.10	165.90	191.09	234.50	270.90	331.79	382.89	428.39
12.00	88.90	126.00	178.50	218.40	252.00	309.39	356.99	437.50	504.69	564.89
16.00	140.00	198.10	280.69	343.70	396.89	486.50	562.09	688.09	794.49	888.29

R= 350. K= 0.24 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	5.04	6.72	8.40	9.24	10.08	11.76	12.60	14.28	15.96	16.80
0.50	6.72	7.56	10.08	10.92	11.76	13.44	15.12	16.80	18.48	20.16
1.00	8.40	10.08	12.60	15.12	15.96	18.48	20.16	22.68	24.36	26.04
2.00	13.44	16.80	20.16	22.68	25.20	28.56	31.08	35.28	38.64	41.16
3.00	19.32	23.52	29.40	32.76	36.12	41.16	44.52	50.40	55.44	58.80
4.00	25.20	33.60	43.68	52.08	57.96	68.04	76.44	90.72	101.64	110.88
5.00	31.08	44.52	63.00	77.28	89.88	110.04	126.84	155.40	179.76	200.76
6.00	39.48	56.28	79.80	97.44	112.56	137.76	159.60	195.72	225.95	252.00
8.00	58.80	83.16	117.60	143.64	166.32	203.27	235.19	288.11	332.63	372.11
10.00	80.64	114.24	162.11	199.08	229.31	281.39	325.07	398.15	459.47	514.07
12.00	106.68	151.20	214.19	262.08	302.39	371.27	428.39	525.00	605.63	677.87
16.00	168.00	237.72	336.83	412.43	476.27	583.79	674.51	825.71	953.39	1065.95

KRLSP TABLES

R= 350. K= 0.28 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	5.88	7.84	9.80	10.78	11.76	13.72	14.70	16.66	18.62	19.60
0.50	7.84	8.82	11.76	12.74	13.72	15.68	17.64	19.60	21.56	23.52
1.00	9.80	11.76	14.70	17.64	18.62	21.56	23.52	26.46	28.42	30.38
2.00	15.68	19.60	23.52	26.46	29.40	33.32	36.26	41.16	45.08	48.02
3.00	22.54	27.44	34.30	38.22	42.14	48.02	51.94	58.80	64.68	68.60
4.00	29.40	39.20	50.96	60.76	67.62	79.38	89.18	105.84	118.58	129.36
5.00	36.26	51.94	73.50	90.16	104.86	128.38	147.98	181.30	209.72	234.22
6.00	46.06	65.66	93.10	113.68	131.32	160.72	186.20	228.33	263.61	294.00
8.00	68.60	97.02	137.20	167.57	194.03	237.15	274.39	336.13	388.07	434.13
10.00	94.08	133.27	189.13	232.26	267.53	328.29	379.25	464.51	536.05	599.75
12.00	124.46	176.40	249.89	305.75	352.79	433.15	499.79	612.49	706.57	790.85
16.00	196.00	277.33	392.97	481.17	555.65	681.09	786.93	963.33	1112.29	1243.61

KRLSP TABLES

R= 350. K= 0.32 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	6.72	8.96	11.20	12.32	13.44	15.68	16.80	19.04	21.28	22.40
0.50	8.96	10.08	13.44	14.56	15.68	17.92	20.16	22.40	24.64	26.88
1.00	11.20	13.44	16.80	20.16	21.28	24.64	26.88	30.24	32.48	34.72
2.00	17.92	22.40	26.88	30.24	33.60	38.08	41.44	47.04	51.52	54.88
3.00	25.76	31.36	39.20	43.68	48.16	54.88	59.36	67.20	73.92	78.40
4.00	33.60	44.80	58.24	69.44	77.28	90.72	101.92	120.96	135.52	147.84
5.00	41.44	59.36	84.00	103.04	119.84	146.72	169.12	207.20	239.68	267.67
6.00	52.64	75.04	106.40	129.92	150.08	183.68	212.80	260.96	301.27	336.00
8.00	78.40	110.88	156.80	191.52	221.76	271.03	313.59	384.15	443.51	496.15
10.00	107.52	152.32	216.16	265.44	305.75	375.20	433.44	530.88	612.63	685.43
12.00	142.24	201.60	285.59	349.44	403.20	495.03	571.19	700.00	807.51	903.83
16.00	224.00	316.96	449.11	549.91	635.03	778.39	899.35	1100.95	1271.19	1421.27

KRLSP TABLES

R= 350. K= 0.37 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	7.77	10.36	12.95	14.24	15.54	18.13	19.42	22.01	24.60	25.90
0.50	10.36	11.65	15.54	16.83	18.13	20.72	23.31	25.90	28.49	31.08
1.00	12.95	15.54	19.42	23.31	24.60	28.49	31.08	34.96	37.55	40.14
2.00	20.72	25.90	31.08	34.96	38.85	44.03	47.91	54.39	59.57	63.45
3.00	29.78	36.26	45.32	50.50	55.68	63.45	68.63	77.70	85.47	90.65
4.00	38.85	51.80	67.34	80.29	89.35	104.89	117.84	139.86	156.69	170.94
5.00	47.91	68.63	97.12	119.14	138.56	169.64	195.54	239.57	277.12	309.50
6.00	60.86	86.76	123.02	150.22	173.52	212.37	246.04	301.73	348.35	388.49
8.00	90.65	128.20	181.29	221.44	256.40	313.38	362.59	444.18	512.81	573.68
10.00	124.32	176.11	249.93	306.91	353.53	433.82	501.16	613.82	708.36	792.53
12.00	164.46	233.10	330.22	404.03	466.19	572.38	660.44	809.37	933.69	1045.06
16.00	259.00	366.48	519.29	635.84	734.26	900.02	1039.88	1272.98	1469.82	1643.35

KRLSP TABLES

R= 350. K= 0.43 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	9.03	12.04	15.05	16.55	18.06	21.07	22.57	25.58	28.59	30.10
0.50	12.04	13.54	18.06	19.56	21.07	24.08	27.09	30.10	33.11	36.12
1.00	15.05	18.06	22.57	27.09	28.59	33.11	36.12	40.63	43.64	46.65
2.00	24.08	30.10	36.12	40.63	45.15	51.17	55.68	63.21	69.23	73.74
3.00	34.61	42.14	52.67	58.69	64.71	73.74	79.76	90.30	99.33	105.35
4.00	45.15	60.20	78.26	93.31	103.84	121.90	136.95	162.54	182.10	198.66
5.00	55.68	79.76	112.87	138.46	161.03	197.15	227.25	278.42	322.06	359.69
6.00	70.73	100.83	142.97	174.57	201.66	246.81	285.94	350.66	404.84	451.49
8.00	105.35	148.99	210.69	257.35	297.98	364.20	421.39	516.21	595.97	666.71
10.00	144.48	204.67	290.46	356.68	410.86	504.17	582.43	713.36	823.23	921.05
12.00	191.13	270.89	383.77	469.55	541.79	665.20	767.54	940.62	1085.10	1214.53
16.00	301.00	425.91	603.50	738.95	853.33	1045.97	1208.51	1479.41	1708.17	1909.84

KRLSP TABLES

R= 350. K= 0.49 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	10.29	13.72	17.15	18.86	20.58	24.01	25.72	29.15	32.58	34.30
0.50	13.72	15.43	20.58	22.29	24.01	27.44	30.87	34.30	37.73	41.16
1.00	17.15	20.58	25.72	30.87	32.58	37.73	41.16	46.30	49.73	53.16
2.00	27.44	34.30	41.16	46.30	51.45	58.31	63.45	72.03	78.89	84.03
3.00	39.44	48.02	60.02	66.88	73.74	84.03	90.89	102.90	113.19	120.05
4.00	51.45	68.60	89.18	106.33	118.33	138.91	156.06	185.22	207.51	226.38
5.00	63.45	90.89	128.62	157.77	183.50	224.66	258.96	317.27	367.00	409.88
6.00	80.60	114.90	162.92	198.94	229.80	281.25	325.84	399.59	461.33	514.49
8.00	120.05	169.78	240.09	293.26	339.56	415.02	480.19	588.24	679.13	759.74
10.00	164.64	233.23	330.99	406.45	468.19	574.52	663.70	812.90	938.10	1049.57
12.00	217.80	308.69	437.32	535.07	617.39	758.02	874.64	1071.87	1236.51	1384.00
16.00	343.00	485.34	687.71	842.06	972.40	1191.92	1377.14	1685.84	1946.52	2176.33

KRLSP TABLES

R= 350. K= 0.55 UP AND DOWN HILL

PERCENT SLOPE	50.	100.	200.	300.	400.	600.	800.	1200.	1600.	2000.
0.25	11.55	15.40	19.25	21.17	23.10	26.95	28.87	32.72	36.57	38.50
0.50	15.40	17.32	23.10	25.02	26.95	30.80	34.65	38.50	42.35	46.20
1.00	19.25	23.10	28.87	34.65	36.57	42.35	46.20	51.97	55.82	59.67
2.00	30.80	38.50	46.20	51.97	57.75	65.45	71.22	80.85	88.55	94.32
3.00	44.27	53.90	67.37	75.07	82.77	94.32	102.02	115.50	127.05	134.75
4.00	57.75	77.00	100.10	119.35	132.82	155.92	175.17	207.89	232.92	254.10
5.00	71.22	102.02	144.37	177.10	205.97	252.17	290.67	356.12	411.94	460.07
6.00	90.47	128.97	182.87	223.29	257.94	315.69	365.74	448.52	517.82	577.49
8.00	134.75	190.57	269.49	329.17	381.14	465.84	538.99	660.27	762.29	852.77
10.00	184.79	261.79	371.52	456.22	525.52	644.87	744.97	912.44	1052.97	1178.09
12.00	244.47	346.50	490.87	600.59	692.99	850.84	981.74	1203.12	1387.92	1553.47
16.00	385.00	544.77	771.92	945.17	1091.47	1337.87	1545.77	1892.27	2184.87	2442.82

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